Macworld

MORE NEWS, MORE REVIEWS

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12 STEPS TO IMPROVE YOUR iMAC!

- Mac OS 9.2.1: all the facts
- Expert Microsoft email tips
- Pro scanners lab-tested
- Mac OS X networking guide
- 24x CD-RW • DVD-R drive
- HP Designjet 10/20/50ps

Simon Jary
editor-in-chief

Why the iMac's third anniversary
is such a big deal to all of us,
and, of course, to Apple.

Happy Birthday to i

In all the hollow hullabaloo about see-through, G4 flat-screen iMacs, many impatient commentators pointed out that Apple's once-innovative consumer desktop computer is now three years old. In computer years, an age of three makes the iMac something like the Queen Mother – gawd bless it! In the face of strong criticism that a younger, less-wrinkled version is required (a hip replacement, if you like), Apple has turned its gaze away from the media "experts" and put out the trestle tables and bunting to celebrate its oldie's anniversary.

Apple has created a special section on its Web site to carry a selection of the 700 birthday greetings it received from around the world. Quite why anyone would take the time of day to send Apple a letter about their computer – unless it wasn't working – got me thinking. Are these the same people who – at the age of 40 – still write Father Christmas letters, or who reach under their pillow for small change after a tooth extraction? Or is the iMac something so special that sending a birthday card is simply the polite thing to do?

I don't remember seeing birthday celebrations for the Dell Dimension, the Compaq Deskpro or the NEC Direction. A recent online Macworld Reader poll (**www.macworld.co.uk/polls**) showed the depth of feeling that many people still held for the Sage-coloured 450MHz DV+ model of iMac. If no one popped a cork for the anniversary of the Dell Dimension family, what hope a party for a specific model of any Windows PC? Did anyone anywhere – no matter how much time or spare cake they had that day – blow out a candle or two for the Gateway G6-333SE? Nope.

The iMac is still something special enough for us to get affectionate about. I put this level of machine attachment down to three aspects that the iMac has touched in many of us: its 'face', shape and colour.

When I say that the iMac has a 'face', I'm not being silly, shallow or overly sentimental. I'm referring to its built-in screen. As Apple realised with its original Mac in 1984 (or indeed with the personally named Lisa that preceded it), building the screen into a computer's shell gives it personality. Apple traded on this when it made the Mac's logo a smiling face, and had it say "Hello" at its introduction.

After the original Mac, the Plus and the SE/30, Apple went faceless and boxy until it sparked low-end revivals with the Mac Classic in 1990 and Color Classic in 1993. I'll tread carefully past the crashing disaster that was the Power Mac 5200, before saying that 1998's iMac returned a level of personality to Apple that had been missing for too long. Even an icy Bondi Blue body couldn't stop the iMac's warm, friendly personality from shining through. It was an instant, and phenomenal success.

Consumers – and soppy sods, such as designers – are attracted to things with personality, and the iMac's screen face really got their emotions going.

The name 'Mac' even makes you think of a character rather than a dumb machine. Microsoft's operating system makes me think of plastic buskets and soapy squeegees. The only Windows that ever provoked any emotion in me are glazed in Sainte-Chapelle in Paris. And they're stained.

Apple often gets it right on computer shapes. The pizza-box LC was a classic, and even the rather soulless Power Mac 6100 had a certain long elegance to it. The iMac followed 1984's Mac shape, with that face and a top carrying handle. The only other inanimate box that got me excited was soon forgotten after I'd got it home and taken the shoes out.
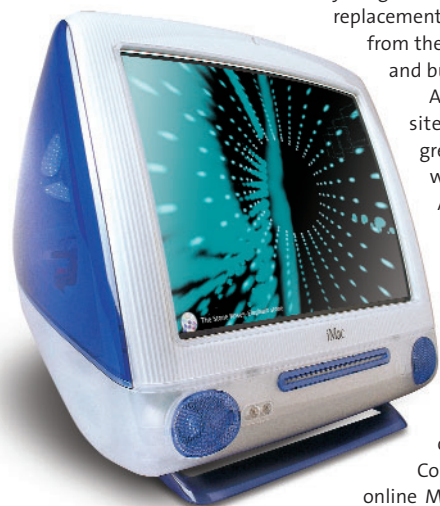
A few PC manufacturers attempted to copy the iMac's cute shape, but tried so hard to emulate the exact lines that Apple had to march them to court on charges of plagiarism. The fact that none even bothered too much on copying the iMac's coloured plastics is simply staggering. Yes, a few PC makers clipped a bit of blue or pink plastic to the front of their beige PCs – but none went any further and produced something genuinely different to the beige PC standard. Beige is a colour designed to disappear from consciousness as soon as it passes the eye's busy rods and cones. In its three years, the iMac came in fruity flavours, rainbow hues and rich gemstone tints.

The iMac is celebrated because of all these things, and also because it single-handedly saved Apple's PR arse all those years ago. Of course, it's also a pretty good personal computer that works straight out of the box, doesn't require any add-on cards, hides ugly cables away from view, and makes accessing the Internet as easy as eating a bag of chips. It's a real achievement by Apple to bring forth such customer loyalty and affection for a plastic box full of circuitry, drive platters and connector strips.

You get the same sort of user devotion for certain types of car that hit the right notes of personality, shape and colour with consumers. If you think iMac users are, well... frankly, a bit nuts for celebrating the machine's third birthday (**www.apple.com/hotnews/articles/2001/08/imac_birthday**), check out the fanatics that people the Ford Cortina Owners' Club (**www.pixelmatic.com.au/cortina**) or the National Mini Owners' Club (**www.miniownersclub.co.uk**). These cherished icons are kept alive by consumer power, and many – such as the Mini – live-on, are developed, and remain profitable brands.

Unless Jonathan Ive falls into a pot of burning silicon or is crushed to death by a prototype 4ft Drive-in Cinema Display, the next iMac will keep alive this mania of public/plastic devotion. Even if Apple changes the iMac's shape to that of a butterfly, chooses Blanket-Men Brown as the next hip colour, or draws spectacles on its screen, someone will send Apple a birthday card every autumn in appreciation of the original inspired idea. **MW**
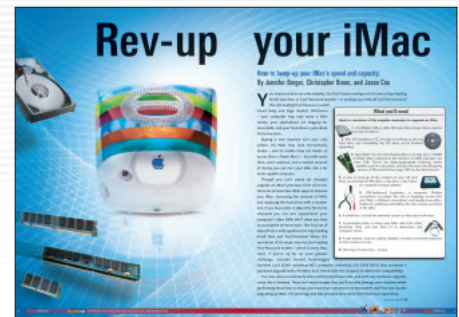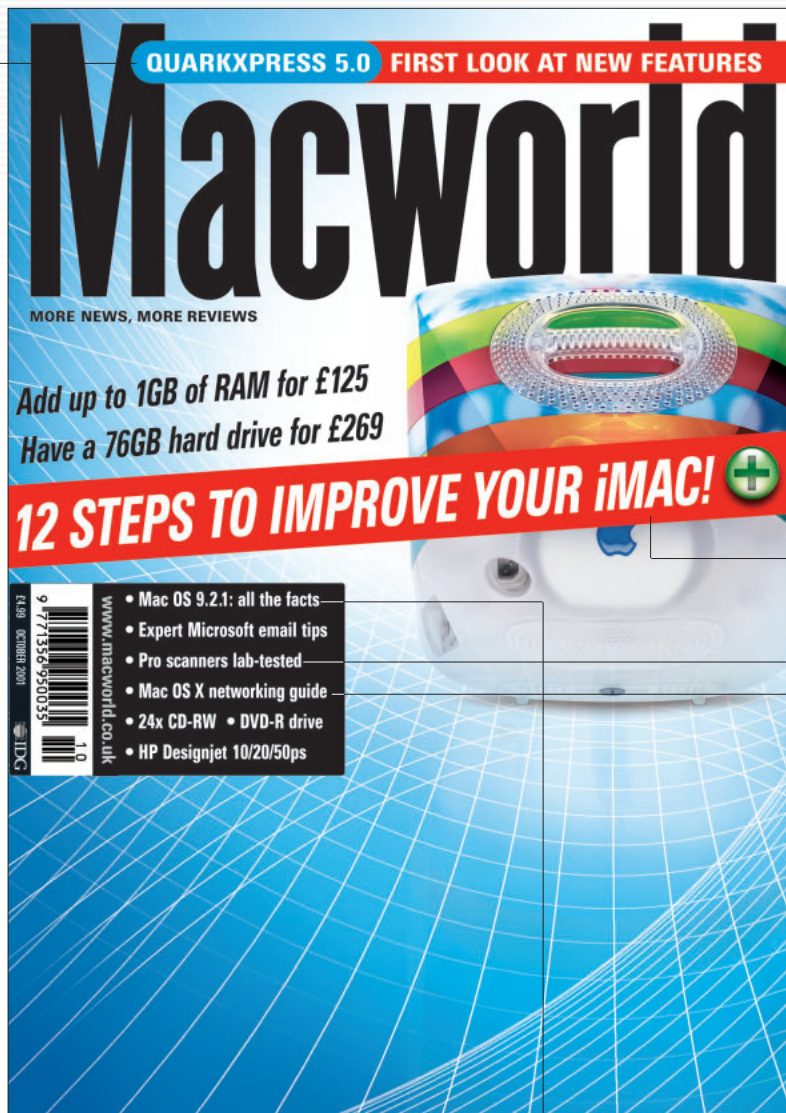
'The only other inanimate box that got me excited was soon forgotten – after I'd got it home and taken the shoes out'

Macworld www.macworld.co.uk

Contents

Star Letter: Burning love

Your news that most of the high-profile hardware manufacturers and software publishers are supporting the next generation of FireWire is welcome. My God, even Microsoft prefers FireWire 2 to Intel's USB 2.0! Now, that's something to really make the Mac logo smile...

FireWire 2 is going to be twice as fast as USB 2.0, and Apple – which developed FireWire in the first place – will rock the computing world by being first to install it as standard on all its new Macs. Many PCs don't even have USB 1.0 as standard, let alone FireWire.
Paul Valery

Subject: BT Mac bully
In attempt to save on Web-connection costs, I tried to sign-up to BTanytime. However, it doesn't support Netscape Communicator 4.72 – only Microsoft Internet Explorer.

Now, BT wants me to ditch Netscape in favour of Microsoft Internet Explorer. When I enquired about manually configuring my Mac, I was told that I'd have to fix any problems.

This amounts to coercion. Plus, I've used IE in the past and don't like it. Why are Mac users still being pushed and controlled by corporate bullies?

Does BT believe that by supplying and supporting only one piece of software, people will switch everything – ISP, browser with email-address books, etc?

We have enough problems with software companies supporting only certain types of operating systems. We don't need this from BT.
Tim Smith

Subject: X rip-off
Apple legal's pursuit of anyone who offers skins (or Themes) for Mac OS X is hypocritical. The company claims that makers are allowing people to "create Themes that are identical or confusingly similar to Apple's copyrighted and trademarked Themes".

One look at Microsoft's next version of Windows – XP – and the similarities with OS X leap out. Where Apple has Aqua, Microsoft has Luna – which includes gel-like buttons and a familiar shade of blue.

Why does Apple not sue the Redmond giants? Could it be that, as the biggest developer of Mac software outside Cupertino, Microsoft has Apple over a barrel?

If only Open Office and any of the other much-touted, but absent, "replacement" business suites for Microsoft Office were to ever get off the ground. Apple legal would be free to do what it loves doing – filing lawsuits.
Matt Smith

Subject: Studio D'oh
I read with great interest your article on the "Ultimate Mac" (August 2001), as I'm lucky enough to be in the process of upgrading kit. Imagine my surprise when I read that "you can connect a larger external monitor (go for one of Apple's LCD studio displays) via the VGA port".

You are claiming the impossible. An ADC-equipped Studio Display can't connect to a PowerBook VGA port. Just when Apple releases a true desktop replacement in the form of the PowerBook G4, it doesn't include any option for connecting to a new Apple display! Stupid!
Perry Warner
MW: Apologies for this error – maybe we were just as stunned at Apple's display judgement.

Subject: Broadband boxes
With the coming of ADSL to the UK, when will the interactive satellite-television stations enable the next generation of DigiBox to offer broadband ADSL?

This service is already available in the USA. All it takes is for the system to be two-way. The end user can plug in a Mac – preferred as it has built-in Ethernet – and then access broadband services offered in conjunction with television channels.
James Johnson

Subject: Megahertz schmegahertz
Why don't Apple, Motorola, et al get out of the megahertz game by talking about the processing performance of the G4 rather than the clock speed? Which sounds better – a 1.4GHz Pentium4 PC, or a 11.8-gigaflop dual-G4 Mac?

If Apple starts boasting about its 12-gig processor power, Intel and AMD will have to respond in kind and start publishing their equivalent (lower) figures.
John Dixon

Subject: Numbers racket
I understand that the speed of a computer is the sum of several component parts, and the fact that my machine runs at a paltry 466MHz doesn't mean it's slow.

However, it rankles – for even the most avid Mac fans – to be parting with large sums of money for G4 systems, when there are PC systems available of similar internal specification, with processors that run at 1.7GHz, and are two-thirds cheaper. When Apple manages to resolve these chip-maker issues, how about offering us all extra-low-cost processor upgrades to allow us to catch up a bit, and restore a bit of pride in the platform?
Nick Plin
MW: There are some cheap PCs out there, many boasting GHz+ processor speeds. However, as Apple has been pointing out, Pentiums have to run a lot faster to get the same performance as the more sophisticated PowerPC chips used in Macs. To find out why Intel GHz can be slower than PowerPC MHz, check-out the QuickTime movie at www.apple.com/g4/myth.

Subject: Font theft
In your article "Inflight safety" (September 2001) on sending work to repro houses, the final section "Untrue type" together with the "Preflight check list" both appear to suggest that typefaces are okay to give away.

You are allowed to send the Font Software to a repro house only if they own a licence for the same font software. Embedding in PDF is a different matter, as most type vendors do not allow the embedding of fonts in PDFs that will be posted on the Web.
Jeremy Tankard

Subject: Shady business?
I read your first-look at the latest version of Microsoft's Office suite in the September issue of *Macworld*. It looks superb! But why is it available only for users of Mac OS X? I'm quite happy with OS 9.0.4, and wasn't intending to switch until next year – but I'd buy Office 10 immediately if it supported my version of the operating system.

It seems to me that Apple is forcing its partners to make OS X-only products, so that we all have to shell-out the £99 for Mac OS X.
Terence Johns
MW: Office 10 is available only for Mac OS X (version 10.1) because it needs many of the new operating system's features. For instance, the alpha-channel transparency capabilities need OS X's Quartz 2D graphics layer.

MW

It's giveaway time with the full version of Now Up-to-Date & Contact 3.8.3, a 30-day trial of Bryce 5, and top demos of Commotion Pro 4 and Canto Cumulus 5. Demos, updaters, games — Vic Lennard provides the guiding hand...

MAIN ITEMS ▼

FULL WORKING VERSION
Now Up-to-Date & Contact 3.8.3

Macworld and PowerOn Software have got together to make sure you're always on time and in touch with your friends and colleagues. On this month's *Macworld* cover CD, there's a **FULL WORKING VERSION** of Now Up-to-Date & Contact. When you find version 3.8.3 is indispensable, you'll want to upgrade to the very latest version, Now Up-to-Date & Contact 4.0.3, which lets you sync your calendar and contacts with your Palm PDA and share information with others in your group or organization. Upgrades to version 4 — soon to be Carbonized for Mac OS X — are available to *Macworld* readers for just £39.95 through Upgrades Unlimited (0800 100 3303; www.upgrades.co.uk). Read our review of version 4.0.3 on page 60.

Now Up-to-Date & Contact helps you get organized and stay organized. Easily display your calendar and contacts on your Mac, make appointments, and store information about the people you know and work with. See the 'Read Me First' file on the CD for the serial number.
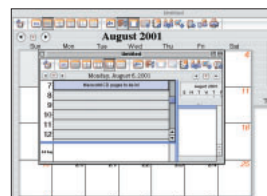
Commotion Pro 4 demo

Commotion combines the power of the paintbrush with intuitive compositing and effects tools to deliver breakthrough performance and control on the desktop. Commotion is just what you need for all your motion graphics, video effects, digital cinema and Web streaming-media projects.

Requires a Power Mac with Mac OS 8.6 or higher, 128MB free RAM, and millions of colours.
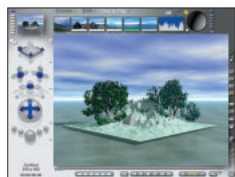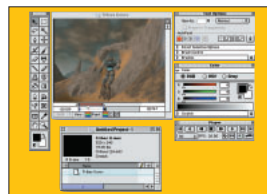
Bryce 5 30-day trial

A powerful 3D landscape creation and animation application, Bryce 5 makes its mark in the 3D graphics environment by striking an optimum balance between power and ease of use. The dynamic tools enable you to unleash and explore the full potential of your creativity. Create photo-realistic landscapes, models and images without the training required by many other 3D applications.

Requires a Power Mac with Mac OS 8.6 or later, and 64MB free RAM.
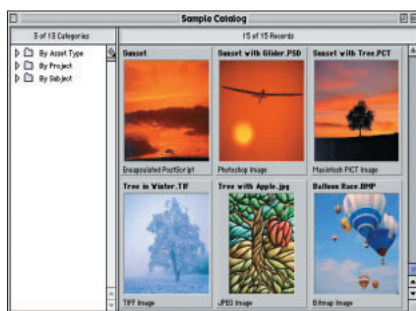
Canto Cumulus 5 demo

Cumulus 5 is the perfect archiving system for multimedia data. It's capable of managing and publishing all types of media assets such as images, layouts, presentations, video, audio and text. It offers powerful search capabilities, comprehensive customizing options and more. The demo will create a maximum of two catalogues, each containing a maximum of 50 records.

Jiggy!

Jiggy is a jigsaw puzzle with a twist of action. As each level starts, you get to see the finished puzzle for a few seconds. Then the pieces are randomly broken up and removed from the board. Individual pieces then begin to slowly fall down the right side of the screen. It's a race against time to complete the puzzle and move on to the next level!

Main CD

OCTOBER 2001

The CD-ROM on the cover of *Macworld* is supplied as is, subject to the following terms and conditions. The CD-ROM is provided as a free item to readers of *Macworld* for their personal use, and may not be resold or copied for distribution. The publisher shall have no liability without limitation for any losses or damage arising from using cover-CD software – or for taking advice from *Macworld's* CD trouble-shooting point-of-contact – including any loss of profit, damage to equipment or data, interruption of business, or any other damage, direct or accidental. It is strongly recommended that you back-up any programs or data on your hard disk before installing any cover-CD software. If problems occur, it is most likely to be a result of an incompatibility or conflict with other software on your system. *Macworld* cannot be held responsible for discontinued offers. This does not affect your statutory rights.

INSTALL ▶ Before you start working your way through the software on our CD, go to the System Utilities folder and make sure you install the following:

■ Acrobat Reader 5
Install this version to be able to read many of the on-screen manuals.

■ StuffIt & RealPlayer
Version 6.0.1 of StuffIt Expander and DropStuff is included as is the installer for RealPlayer 8.

■ System tools & ATM Lite
The CD also carries the latest version of InternetConfig, UnZip 5.32 and ATM 4.6.2 (required for Suitcase).

■ QuickTime 4.1.2
Some programs require QuickTime 4.1.2. This can be downloaded from www.apple.com/quicktime/download.

INSIDE MACWORLD ▼

BIAS Deck VST 3.0
Pro quality multitrack recorder/editor. Now features VST plug-in support and major user-interface update. Fourteen-day trial.

Igor Engraver 1.5
Powerful music notation program with built-in support for e-commerce for portable, cross-platform scores. Thirty-day trial.

Maelstrom 3.0.5
Pilot your ship through the dreaded Maelstrom asteroid belt – the deadliest stretch of space known to mankind. Mac OS X, freeware.

Stone Studio
Suite of programs including graphic design with page layout and Web-publishing features, and PDF to PostScript conversion. Mac OS X demo.

Snapz Pro X 1.0
Save anything on screen in a variety of image formats. Scale, crop and colour depth-change images. Mac OS X, Shareware.

plus...
A-Dock, DiskSurveyor 2.5, EndNote 30-day trial, Euro Assistant Pro 2.4, FileMonitor, Hold-Up demo, Peak LE/TDM/VST 2.6 trials, ShareWayIP 3.0, Suitcase 10 trial.
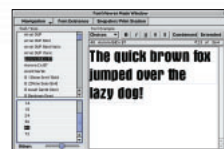
FontViewer 1.3.8
Simple, elegant font viewer that allows you to preview all fonts in your fonts folder. Shareware.

CD CATALOGUE ▼

Courtesy of Mark Pirri's superb DiskTracker program, Macworld brings you a searchable catalogue of all our CDs from 1997 to 2001 – over 233,000 files! This will grow month by month to allow you to find any file you want, without wearing out your CD-ROM drive. The latest version of DiskTracker (2.1.1) is also included – don't forget to register if you find our library useful.

OS X HEAVEN ▼

SERIOUS SOFTWARE *includes* ▼
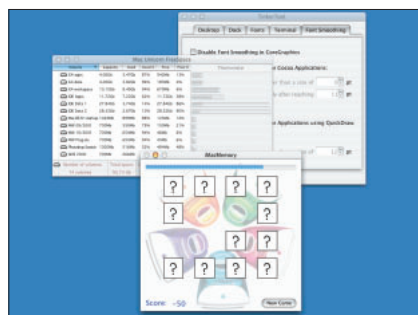
OS X Heaven – your monthly one-stop shop for the latest OS X-specific software. Utilities, demos, shareware and games – OS X Heaven features the best Carbonized goodies for the Mac's new OS.

This month there's a test drive of Virtual PC (requires a full Mac OS 9 version), plus 27 demos and shareware utilities including FreeSpace 1.5, to find out what hard disk capacities are currently in use, the latest version of TinkerTool for altering OS X's appearance, iUnit, a unit conversion program, and Macromedia Flash Player 5.

There are also five Carbonized games including iMacMemory, a nice version of 'pairs', and AppleScript Games X, a collection of enjoyable time-wasters.
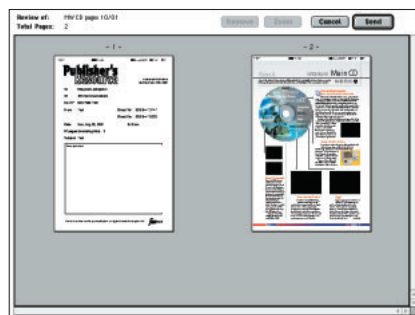
FaxExpress 6.0.1 demo
Evaluation versions of both the Network and Solo fax programs are included, though it's the former that makes the headlines. Excellent, bullet-proof networked faxing with a number of enhancements from version 5 including: drag-&-drop Phonebook, a new Phonebook Editor, enhanced FastFax, multiple cover pages, improved FaxViewer with post-it style notes, enhanced Log File, new printed confirmation with time and date, and redesigned user interface.

The evaluation version stamps the word 'Evaluation' across each page of a sent fax and allows you to view only the first page of each received fax.
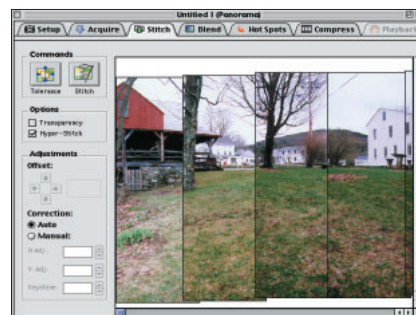
The VR Worx 2.1 demo
Now supporting Mac OS X, VR Worx 2.1 has more features and greater functionality than any other QTVR authoring tool on the market. Aside from creating basic panoramas and object movies, it can generate an object movie that has the object within a panoramic background (Object in Pano), and has 11 multi-node transitions, including cross fade, wipe, zoom, radial and iris. It's scriptable via AppleScript, and has a new fast stitching capability, 'HyperStitch'. The Web is supported via existing templates and pre-built HTML pages.

The demo is Save disabled. Requires a Power Mac with Mac OS 8.1 or later.

Main CD
OCTOBER 2001

GAMES WORLD ▼

DEMOS & GAMES ▼
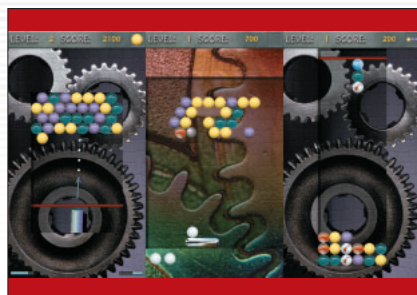
Mike's Marbles 1.1

Block-falling and marble-shooting puzzles with style! Features of this quite unique game include a number of different types of puzzles, highly detailed graphics with fast, smooth animation and effects, a scalable board that can fill any monitor, gameplay against one to four human and/or computer players, the ability to 'wrap' blocks from edge to edge, and an easy-to-understand, if a little whacky, graphic interface.

The same copy of Mike's Marbles works on any Macintosh (680x0 or PPC) running any operating system from System 7 up to and including OS X. It even runs native in Mac OS X!

Demo restricts play to the lower levels.

TankFighters

TankFighters is not a complex game – it is intended as a game you can rapidly get into and become proficient at. Begin in the 'Target Practice' area where nothing shoots back at you. Then, you can choose to fight alongside computer controlled tanks against the enemy team, keeping the game fairly easy. Later, as you get better, you can choose to fight alone against several computer-controlled tanks, making the game much more difficult. For the ultimate game, play networked with your friends.

It's definitely fun – especially when you try to move the tank in one direction and rotate the gun turret independently!

Demo is interrupted by a 'nag' screen.
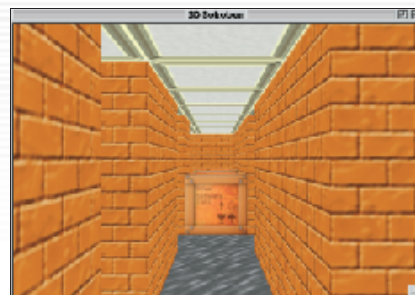
3D Sokoban 1.0

This month's Top 10 Shareware Games folder features half a dozen new games.

3D Sokoban 1.0 is Sokoban with a difference – you're personally in the maze! Push the boxes around in this five-level trial version. If you remember Rubik's Cube you'll love Cubic 1.0, a faithful on-screen rendition. Then there's Xop 1.0, a marble puzzler, and The Tanna Tuva Stock Exchange, specially for those who like stocks & shares. Don't miss Unprovoked 1.0, one from the Asteroids genre, and Cat and Mouse 2.0, a competitive two-player card patience.

We've also included the latest versions of RightWord (1.1), Awale (3.2) and the ever-green David's BackGammon (4.1) plus the 13-game compendium of AppleScript Games.

ALSO ON THE CD ▼

DON'T MISS... ▼

COMMS & INTERNET
12 programs including:
Mail Forward 1.3
PageSucker Mac 3.0.1
The Note's HTML Turbo 1.0
WebsiteCompressor 2.3.1

EDUCATION
Four items including:
Language Assistant 2.1.2
QuickTTest 1.7

FONTS
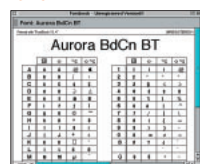
FontBook 3.4

GRAPHICS
Five applications including:
Meshwork 1.8.2
Mike's Edge

ICON UTILITIES
IconizerPro 1.5.1

INFO
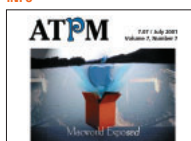
ATPM 7.08
Extension Overload 5.9
ExtensionTracker 1.1
plus 10 utilities for developers

MATHS & SCIENCE
Six items including:

Atom in a Box 1.0.7
Geometry 2.4.2
TopCalculette Pro 3.1

SCREENSAVERS
Desktop Screen Saver 2.1.4

Jedit 4.0.9e
Keep-It-Up Classic 2.4.5
PrintToPDF 2.2.4
QuoEdit 1.0.0

SOUND & MUSIC
11 programs including:

Amazing Slow Downer 1.09
easy beat 1.3
ID3X 1.6
Virtual Composer 2.8.8
Vortex 1.0

UTILITIES
Eight categories with 36 useful tools for your Mac including:
Blaze 1.1
clipEdit 2.1.4
Convert 1.3.2
CreaText 1.2
Doublet Scan 3.4.0
Drop Drawers 1.5.7
Excalibur 4.0
Ghost Hunter 2.1
Hide-A-Folder 2.5

SwitchBack 3.4
Synchronize! Pro 4.3.1
textSOAP 3
Thermograph 1.3.3
Troi Ranges 1.1
UtilityDog 1.3.2

UPDATERS
This month's dedicated updaters folder includes over 50MB of patches to bring many popular applications bang up-to-date, including:
Aurora Fuse 2.0.2
Conflict Catcher 8.0.9
FlightCheck Classic 4.1
Igniter 3.1.5
Internet Gateway 7.0.2
IomegaWare 3.0.4
LaCie Blue Eye 3.4
MouseWare 4.0.1
Norton AntiVirus 5-7 (8/01)
NUDC 4.0.3
SampleCell 3.0
SurfDoubler 7.0.2
Virex (8/01)
VirusBarrier (8/01)
XPressImage 4.21

■ **Cool Extras**
PixelToy 2.5
Lava lamp plus!

Superior Startup 1.0
Custom text on startup

Latest icons
Over 100 new goodies!

■ **Mac ISP**
Access offers from AppleOnline & Moose Internet Services.

■ **Netscape/Internet Explorer**
Complete packages for Netscape 6 (with 6.01 update) and IE 5.

■ **Plus…**
… many thanks to Simon Youngjohns for our CD icons.

SHAREWARE

Shareware is a distribution method, not a type of software. It makes fitting your needs easier, as you can try before you buy. Shareware has the ultimate money-back guarantee – if you don't use the product, you don't pay for it. If you try a Shareware program and continue using it, you are expected to register. Support shareware authors so that they continue to provide high-quality programs for the Mac.

Probably the largest plug-in collection ever to be placed on one CD — over 1,000 plug-ins and 750 resources for Photoshop, QuarkXPress, Illustrator, Acrobat, InDesign, After Effects and Premiere. Read — and then enjoy!

MAIN ITEMS ▼
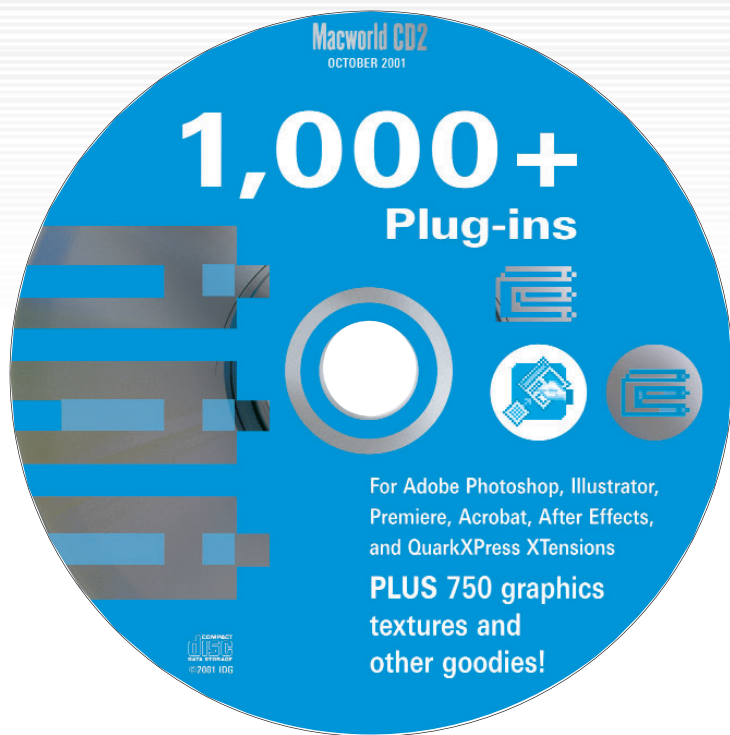
Start here...

The CD plays host to some big items. There's 20 XTensions to go with our QuarkXPress mini feature on page 139, including the two volumes of ALAP's Xpert Tools, a number of Gluon's excellent XTensions, and a fully usable version of Badia Software's FullMeasure XT Light.

The second folder here is spilling over with Photoshop filters and resources courtesy of Cybia — 130 plug-ins, 400 synthetic textures and 20 new texture brushes.

Next up is over 50MB from Sapphire Innovations including a huge number of samples, demos and freebies for Photoshop, Illustrator, Painter, After Effects and Flash. Patterns, frames, displacement maps, nozzles, textures, gradients, shapes, brushes — literally hundreds of them!

See left for information about the dedicated XChange International folder.

Hot, new plug-ins

The centre section concentrates on six new items.

For Photoshop, there's a demo of Buzz.Pro, (reviewed in Macworld last month), and a time-limited trial of the latest version of SuperBladePro, including tutorials and 80 additional textures and environments.

QuarkXPress users will want to try the demos of ImageAdjuster for colour-correcting TIFF images inside XPress, and Flipster, which intelligently flips layouts.

And for Acrobat users, there's a 30-day trial of the essential PitStop Pro 4.61 and the latest demos of Quite Imposing and Imposing Plus.

XChange Corner

XChange International, a specialist in QuarkXPress XTensions and plug-ins for Photoshop, Acrobat and InDesign, highlights five products for you to try out.

This month, the focus is on QuarkXPress. ImageAdjuster 1.0 (on the desktop) enables correction to TIFF images directly within XPress, while the new version of FontIncluder2/XT allows you to embed fonts into EPS files as part of XPress's Save page as EPS option. Xdata (in the QuarkXPress Mini Feature folder) brings info from your database into XPress, Gluon DocuSlim 2.1.4 Enhanced optimizes images from within XPress, and BlackLining 2.16 tracks editorial changes to XPress documents.

Visit **www.xchangeuk.com** for more information.

The Main Event

The bottom six folders house hundreds of plug-ins for Acrobat, Illustrator, QuarkXPress 4, Photoshop, InDesign, After Effects and Premiere.

Installation is generally easy. Unless an item has a dedicated installer, drop the plug-ins into the following folders:
- Acrobat: Plug-ins
- Illustrator: Plug-ins
- QuarkXPress: XTensions
- Photoshop: Plug-ins
- InDesign: Plug-ins
- After Effects: Plug-Ins
- Premiere: Plug-Ins

This collection will take you a long time to work through (for instance, there are over 200 XTensions for QuarkXPress).

Hints & Tips

With such a huge collection of plug-ins there are bound to be some problems.
- Not all plug-ins will work with all versions of programs. If an application starts behaving erratically, remove the plug-in.
- Most Photoshop plug-ins may also work with compatible applications such as Paint Shop Pro, PhotoDraw, CorelDRAW and PHOTO-PAINT.
- If an XTension puts QuarkXPress into Demo mode, be aware that anything you save can only be opened in demo mode, not in normal XPress. So be very careful before saving anything during the demo.
- As plug-ins generally use part of the main program's memory, increase the program's memory allocation, accessible from the desktop by using ⌘-I.
- Finally, read all files carefully, install the plug-in — and then read the files again.

Apple showboats, to punters' delight

DVD Seminar

Apple is maintaining its solutions-based strategy to reach existing customers and win new ones by holding a DVD-authoring seminar next month.

Part of a Europewide series of similar events, DVD Authoring Simplified takes place in the UK on October 16 at Kensington Town Hall, London. The event will give UK Apple fans a first glimpse at Maya for Mac.

The event is aimed at professional video-producers and multimedia developers, as well as at video enthusiasts. Attendees will learn about Apple's DVD-authoring applications, iDVD 2 and DVD Studio Pro.

Apple will also demonstrate how to use multimedia products – including iMovie, Final Cut Pro, QuickTime and Photoshop – in the DVD-authoring process. Alias|Wavefront will run a Maya on the Mac showcase. Registration is open now, though places are limited. For details, go to www.apple.com/uk/series/dvdauthoring.

Apple's customers in the UK and Europe can pencil-in a further date in their diaries, following the company's surprise announcement that it will attend London's MacExpo, as well as the Apple Expo in Paris.

MacExpo is an independently organized event for the UK Mac community, taking place at the Business Design Centre, Islington, London, from November 22-24. The decision to attend follows a year's negotiation between the company and event organizers.

Before then, Apple CEO Steve Jobs will deliver the keynote speech at Apple Expo 2001, to be held on September 26 at the Palais de Congres in Paris. However, Mac aficionados' hopes of new-product announcements have already been dashed by Jobs, who said in a statement: "This has been an incredible year for Apple for new products, so we don't plan to launch any new hardware in Paris this year.

"My keynote will focus on Mac OS X 10.1, the super-fast new version of Mac OS X, and our revolutionary new iDVD 2 software."

It's thought that Apple is seeking to prevent a repeat of the disappointment that greeted Jobs' keynote announcements at Macworld Expo New York, where the non-appearance of much-rumoured flat-screen iMacs eclipsed all product announcements. Apple watchers believe the company can't afford to further disappoint customers in a softening economic climate. Other industry pundits believe Apple is hoping to wait-out the slump, though one source, who wished to remain anonymous, told *Macworld*: "Apple has to be careful. If it sits on new products too long it may end up with a basket of rotten fruit."

Apple issued Mac OS X Public Preview in Paris last year, and the event is seen as an appropriate stage for the launch of the first major OS X upgrade, version 10.1.

Pre-registration for the Paris event

'This has been an incredible year for Apple for new products, so we don't plan to launch any new hardware in Paris this year.'
Apple CEO Steve Jobs

The show goes on
Last year's The Expo 2000 took place without Apple in attendance. This year's renamed event, MacExpo, has Apple on board.

is free, but keynote access closed on August 3. Apple has organized combined-travel discount packages, details of which are available from the AppleExpo Web site (www.apple-expo.com).

Show themes
The Paris show will feature 250 exhibitors divided into themes that include education, creative, work, health, games and music. Apple has booked a 1,600 square-metre booth. Adobe, which didn't show at July's New York Macworld Expo will also be exhibiting. Its presence is said by many to indicate the start of its Mac-product release cycle.

At the Paris show, there will be particular focus on Mac OS X and

mobile computing. A series of conferences will examine issues affecting Macintosh users, including sessions on migrating to OS X.

As they did last year, the organizers are attempting to persuade exhibitors to supply multilingual brochures and staff on their stands. The effort was a partial success last year, but UK attendees still complained of a French bias at Apple's only European show. The Mac market is hoping organizers have been able to build on what

success they achieved last year.

Meanwhile, London's MacExpo 2001 is gaining momentum following Apple's decision to exhibit. MacExpo was born out of Apple's decision in 1998 to scrap the London Expo it once ran. Apple's support has been well received by the industry. James Clive, senior account manager at LaCie, which will be exhibiting at the show, said: "We're very happy to see what appears to be a positive commitment to the UK market by Apple."

The decision has sparked a surge of interest from companies seeking to exhibit at the event, as well as creating a wave of positive publicity worldwide.

Customer claim
Apple UK PR manager, David Millar, was adamant that Apple UK has been working hard to stay in touch with its customers, despite the loss of Apple Expo, London: "Over the past few years, we've actually increased the contact points between us and our customers. We have launched a series of successful seminars for particular-interest groups, and have also got involved in a number of dealer-located events. We are trying to address the needs of key audiences."

Apple will bring its solutions theatre to MacExpo, where it has hired the largest exhibition space.

Show organizer Bob Denton told *Macworld*: "Apple very enthusiastically wants to support MacExpo, and has confirmed the largest stand in the building".

Denton added: "This is key. It's precisely what all Mac devotees asked us to achieve, and underlines

MacExpo's position as the UK event for all Macintosh users."

Hermstedt managing director Andy Eakins agreed, saying: "The decision vindicates the existence of the show, and renews my enthusiasm for it. It's a 180-degree turnaround in terms of Apple's attitude. Last year, it was trying to persuade me not to attend the show. It's good that Apple UK's new MD, Mark Rogers, is embracing it this year."

Adobe UK and Ireland marketing director, Mark Floisand said: "It's great that Apple's attending the show. At a local level it gives vendors and customers the chance to talk with the company." At press time, the company was unable to confirm if it plans to exhibit at MacExpo.

MacExpo 2001 is bigger than last year's show, and the organizers hope to attract 20,000 visitors over the three days. Last year's event ran for two days and attracted 10,452 attendees – only one per cent of which had been to Apple Expo, Paris, according to the MacExpo organizers.

MacExpo is split into themed areas: games and edutainment; developers; Internet design and art; solutions expert; and a music and audio area, that will be focusing on iTunes.

The exhibitor list also includes Epson, Hermstedt, LaCie, Iomega, Macromedia, Corel, Microsoft, Wacom;, Proxim, and Quark. *Macworld* will also be in attendance.

Resellers and distributors – including MacLine and AM Micro – will also attend. The first 3,000 customers go free. To pre-register go to www.macexpo.co.uk. **MW**
Jonny Evans

G4 PowerBook prices drop in UK

Apple has applied global price-cuts to G4 PowerBooks, with savings of £300 in the UK.

The 400MHz model now costs £1,599, down from £1,899. The 500MHz 20GB model is £2,199, down from £2,499, and the 30GB – available exclusively from the Apple Store – is now £2,550, down from £2,850. These prices exclude VAT.

Apple has also closed the free CD-RW voucher-based offer. This meant PowerBook customers got a free VST CD-RW drive from Apple.

Greg Joswiak, Apple's senior director of hardware product marketing, said: "With this aggressive new pricing, we're offering amazing value on the world's best notebook computer."

Industry insiders claim the price reductions are an attempt by Apple to reduce the price difference between PowerBooks and iBooks, rather than a move to prepare the ground for a new model.

In related news, Apple UK is offering a deal to customers under the slogan: "Your digital life starts here. For less."

The deal means that, between August 15 and October 14, any customer purchasing an iBook or CD-RW iMac can save up to £300 on selected products.

Apple is offering discounts on Lexmark printers, Rio MP3 players, certain Canon camcorders, and Kodak EasyShare digital cameras. It is also offering a rebate of up to £80 on each product. Customers receive a rebate on each product when buying from the Apple Store. **MW**
Jonny Evans

OS 9.2.1 for G3/G4s only
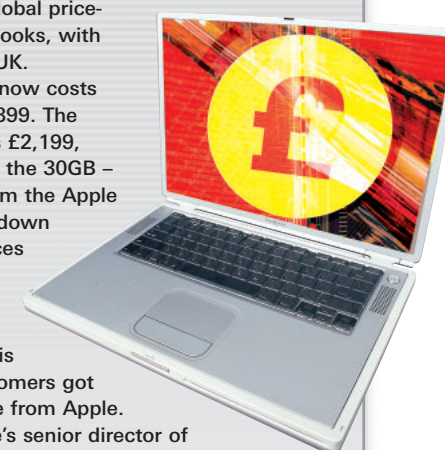
Plane sailing for airborne Mac

NASA is funding an unmanned research aircraft, called Helios, which is run by a Mac.

The $10 million craft is being developed as a flying telecom tower, providing servers for wireless broadband services. It was built and designed by AeroVironment.

The craft will hover on the outer atmosphere high above big cities offering wireless broadband to anyone with a satellite dish, router hub and a service contract. Helios has a Mac on-board to control take-off and landing. If the exploratory missions prove a success, the company will roll-out the service.

Its wingspan is wider than a Boeing 747; it's six-feet high and weighs 1,850 pounds. It flies at an altitude of 100,000 feet, and runs on solar-powered electric motors. The craft is designed to remain airborne for six months at a time.

Apple has released a version 9.2.1 update – codenamed Limelight – to Mac OS 9 but modem users beware, as it weighs in at over 80MB.

An Apple spokesman said: "The update improves Classic application-compatibility in Mac OS X, as well as hardware support for Macs capable of running Mac OS X."

Apple's 21 dedicated Knowledge Base servers struggled to cope with the rush of downloads, as news of the update's availability spread, and users experienced difficulty logging on to Apple's site.

The 9.2.1 update requires users to have Mac OS 9.1 installed if performing an automatic or manual update. The update can be installed on Mac OS X-compatible computers, including the Power Mac G3, Power Mac G4, PowerBook G3 (except for the original PowerBook G3), PowerBook G4, iMac, and iBook. The release marks the end of the line for users of pre-G3 Macs, who will enjoy no more compatible system-software updates.

Separate versions of the 9.2.1 installer have been created for International English and North American English markets. French, German, Spanish, Italian, Dutch, and Japanese language versions are also supported.

The 9.2.1 update also integrates most of the software updates released by Apple in recent months.

It offers a streamlined folder-structure, that involves moving Mac OS 9 applications into one folder for Mac OS X compatibility.

Finder blinder

The update also implements USB-printer sharing, as well as new Finder navigation, which includes an update that shows open folders in the Finder's Windows menu. iDisk access has also been improved – users can access it when inside the open/save dialogue box as they can customarily with any connected drive.

Reports claim that ATI and NVidia video-card drivers are also updated by this release. OpenGL 1.2.2 and improved Classic support are included in the distribution.

One reported glitch concerns Apple's DVD Player, which may be deleted or disabled by the update. A suggested fix is installing the DVD Player 2.7 firmware update. Visit Macfixit.com for more details and suggested fixes. Also check Apple's Knowledge Base for further information on solutions.

The update is available either as a single 83.1MB installer or as a six-part download from www.apple.com/software. *Macworld* has learned that Apple has no plans to make the update available as a CD. **MW**
Jonny Evans

Apple's cubist revival

Apple's innovative-but-doomed G4 Cube has been purchased by New York's Museum of Modern Art for its design collection.

The Cube forms part of the museum's Workspheres exhibition, which examines the balance between work and life, as well as the designer's role in creating work solutions.

Paola Antonelli, curator of the department of Architecture and Design at the Museum, said: "The Museum of Modern Art acquired the G4 Cube for its collection, along with several other recent Apple products. The computer was selected because of its innovative, thoughtful and beautiful design."

Apple CEO Steve Jobs told the *New York Times* that Apple was "surprised and honoured" by the news.

He added: "The reason we care about design has more to do with touching the everyday lives of users."

Apple officially scrapped the G4 Cube on July 4, following poor sales.

Jobs added: "The Cube was not a failure of design, but a failure of concept. We believed that the targeted audience of professionals wanted compactness above expandability, and the products sales proved us wrong. It was a wrong concept fabulously implemented."

During its life, the Cube received prestigious design awards, including those from *Business Week*, D&AD and Industrie Forum Design. **MW**

Palm falls back on plan Be

Palm is to buy the intellectual property and technology assets of Be Inc – the beleaguered operating system publisher – for $11 million in stock.

Be Inc will be wound-up following the deal, which has already earned approval from Be's board. The deal is expected to be completed in the fourth calendar-quarter of 2001.

Palm spokeswoman Marlene Somsak said: "Taking our outstanding team and infusing it with the additional powerful resources of Be will, we think, be a great combination. Be Inc is of the same mindset, but possesses extra expertise on things like multimedia, Internet and development tools."

The number of ex-Apple employees at Palm is ever-growing. David Nagel, ex-Apple vice-president of research and development (R&D) is to head the Palm OS subsidiary company, while Be Inc. was founded by Jean-Louis Gassee, former Apple chief technologist and one-time head of R&D.

Fired by former Apple CEO John Sculley in 1990, Galsee founded Be with former Apple engineer Steve Sakoman, who had been who been working on Apple's Newton PDA. Sakoman will join Palm's board as chief technology officer. He once directed Apple's CPU development team for the Apple II and Macintosh products.

Gassee recruited several ex-Apple engineers for Be Inc, including another Newton-team member, Bob Harold, and Erich Ringewald – who had been working on the Pink OS that was supposed to replace System 6.

Be'soperating system BeOS was unveiled in September 1995, and was a more robust and capable operating system than the Mac OS of the day.

In 1996, Peter Barrett, an independent software entrepreneur, surprised then-Apple CEO Gil Amelio by showing a Mac interface running on top of the BeOS. He suggested to Amelio that Apple buy Be Inc, envisioning Be as a separate arm of Apple – called Modern OS – with Ringewald in charge.

NeXT step

Apple made an offer of $120 million, but Gassee rejected it – although the company is now selling its assets for a fraction of that. As an alternative, Apple purchased Steve Jobs' company, NeXT, for over $400 million in 1997.

The Be purchase is part of Palm's reorganization as it focuses on its core business – handheld-computer hardware – as well as licensing the Palm OS.

Palm is aiming to build a path for its developers, to let them build more innovative devices using the Palm OS in order to compete with more powerful handheld solutions, such as the Microsoft's PocketPC.

Motorola, Intel and Texas Instruments are all developing new Palm OS-based PDAs, some of which will run on powerful ARM processors.

In other Palm news, Palm the company is facing a lawsuit alleging that its HotSync cradles can incapacitate a number of serial ports – with one report involving an Apple Mac. Palm denies the claims, many of which surfaced in user reports unearthed by the IDG News Service. The Palm V is the most affected unit, according to the reports.

The original lawsuit is being amended to include damage caused to computers and motherboards as a result of static electricity, floating-voltage problems or other electricity issues, as well as the HotSync function. The lawsuit seeks unspecified monetary damages and an injunction causing Palm to warn users that its PDAs can harm their computers.

"We're aware the lawsuit has been filed, and are reviewing it," Palm spokeswoman Julia Rodriguez, said. "We stand by our products, which are certified to meet all domestic and international standards." **MW**
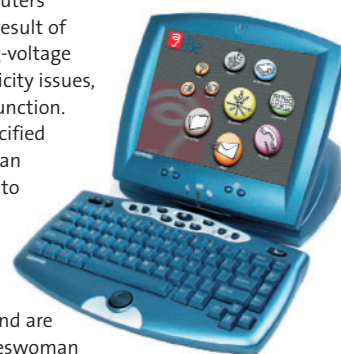
Handspring price surprise

Handspring, which licenses the Palm operating system, has slashed the prices of all but one of its handheld personal digital assistants (PDAs).

The move marks an intensification of the price war with its rival, Palm Inc. It's also seen by industry pundits as a bid to head-off Microsoft-based devices, which have gained a foothold in the market.

Handspring's UK prices (inclusive of VAT) are as follows: the Visor Solo is down from £109 to £89; the Visor is now £119, down from £139; the Deluxe was £169, but now costs £149; the Platinum is down by £30 to £189; and the Edge (left) was £329, but is now £269. The

only price to remain unchanged is that of the Prism, which still costs £349.

The price cuts follow similar changes from Palm, which were designed to clear a huge inventory amid a shrinking market.

Sagging demand

Demand for PDAs fell markedly this year. Shipments fell 21 per cent in the second quarter, compared with the preceding quarter. Shipments totalled 2.8 million units, claims Gartner Dataquest.

Palm is the market leader with 50 per cent, but lost significant market-share in the second quarter.

Compaq has also recently emerged

as a strong PDA competitor, with its iPAQ handheld – based on a Microsoft operating system. Compaq doubled its share to 16 per cent of the market, from 8 per cent in the first quarter of 2001. Handspring is in third place with 11 per cent of the market, a decline from 16 per cent in the first quarter of 2001. **MW**
Jonny Evans

Seeing the LightWave

Siggraph 2001, the world's largest exhibition and conference for the computer-graphics industry, was dominated by Newtek's surprise announcement of LightWave 7.

Andrew Bishop, Newtek's press relations and market development manager, told *Macworld*: "I can't stress enough how big this release is for us. It's a killer product. I think it's undoubtedly the most powerful 3D package in the world today."

LightWave is designed for professional 3D animation, movie and gaming production. It's got built-in rendering, modelling and animation engines. Version 7 is available now for Mac OS 9.x and Mac OS X.

Retail therapy

"LightWave 7 is the first 3D application with nonlinear editing support in the world under £15,000," claimed Bishop. It will retail at £1,495 (ex VAT), or as a £300 upgrade for existing users. LightWave 7 offers hundreds of new and improved features – and over 600 new plug-ins.

The product has been road-tested by major design houses. It was used in production of both the *Tomb Raider* and *Driven* movies.

New features include: a Squash and Stretch tool; the capacity to Load and Save Hierarchical Motion data containing all the relevant components, motions and channels for a character group; and the ability to apply mass scene changes on the fly.

'I can't stress enough how big this release is for us. It's a killer product. I think it's undoubtedly the most powerful 3D package in the world today'
Andrew Bishop – marketing manager, Newtek

Unique additions include Fluid Dynamics, Hair and Fur Rendering and a built-in database for managing 3D assets.

The Hair and Fur rendering uses the Sasquatch rendering engine, which Newtek calls the "fastest, highest quality hair renderer in the industry." Sasquatch is built into the application, which has generated positive acclaim from LightWave user groups online.

Another improved feature, Sky Tracer 2.0 offers a completely new, streamlined user interface. A "SunSpot" control allows users to enter specific time, date and global positioning data to generate accurate sun positions.

New Edit functions include the ability to set up Bone, Light and Object properties and effects. Tags, Motion Options and Item Flags are also editable – this feature has been designed to speed workflow.

Bones breakthrough

Newtek's engineering team has developed a modified bones deformation algorithm, which reduces cross-talk between bones and provides a more natural deformation/rendition of skin surfaces without any point assignment being required.

The Facial Animation tool has been improved – it now supports Endomorphs and has a Motion Mixer, which lets users insert morph positions into a model file and blend between them.

The Collision Spawning engine has seen significant improvement too. This now allows collision events to create new particles with their own

Fur enough
LightWave 7 integrates its own Hair and Fur rendering-engine solution to help 3D designers build world-standard animation and video.
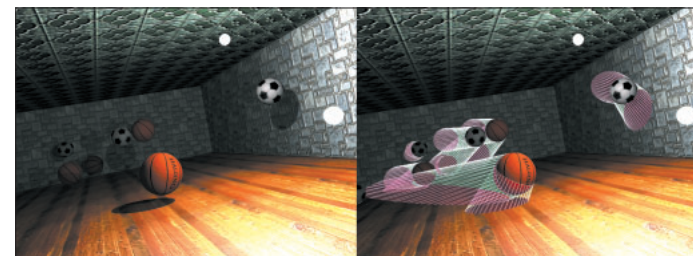
Out of the shadows
ATI's Smartshader can apply real-time rendering for the shadows of multiple objects affected by multiple light-sources in the same frame.

Chip off new block

ATI Technologies unveiled its next-generation Radeon graphics chip at Siggraph.

The company also announced a new set of graphics cards to accompany the chip. ATI promises that Mac versions will ship soon.

ATI's Radeon 8500 has 60 million transistors packed onto a single chip – twice the number of the original Radeon. It can process pixels at a rate of one billion pixels per second with a peak memory bandwidth of 12GB per second. ATI's director of desktop marketing Jewelle Schiedel-Webb claimed ATI's Radeon 8500 offers 30 times the 3D performance of ATI's RAGE Pro chip. It introduces Truform and Smartshader technologies, with another new technology called Smoothvision, a new method of real-time anti-aliasing. Existing Radeon technologies have also been improved, according to ATI.

ATI has been promoting Truform and Smartshader as technologies that would appear on its future graphics hardware.

Truform can create high-order curved surface from objects with low polygon counts. This generates more realistic, organic, rounded and curved shapes without eating processor power. Game and 3D application designers creating Truform-compatible games will be able to create much richer visual environments without performance loss.

Smartshader provides developers with a way to create more detailed lighting, shadowing and texture effects.
Peter Cohen

Radeon cleans up
The Radeon 8500 offers 30 times the 3D performance of ATI's own RAGE Pro chip.

independent attributes. New Wind types include: direction, explosion, rotation, cylinder-explosion, doughnut, turbulence, vortex, path, sticky, random, hemisphere and drag.

Brad Peebler, executive VP of 3D graphics for NewTek said: "We feel that with LightWave 7 artists will be able to achieve the highest quality effects, more efficiently, for projects in any 3D market."

"One of the key things we've seen in our market is that professional animators like frequent upgrades – and this is the fourth upgrade to our product within the last year. It's significant for our market," said Bishop.

Other announcements included Discreet's new version of Combustion 2, its animation, compositing and painting tool for 3D movies, games and animation. Carbonized for Mac OS X, it's likely to ship at the end of the year.

Siggraph was also the forum for the announcement of OpenGL 1.3, a significant revision to the leading cross-platform 2D and 3D graphics-application-planning interface. Enhancements include: Cube Map Texturing, which offers better mapping and lighting support; multisampling, which promises order-independent anti-aliased rendering of points, lines and polygons; and new Texture modes.
Jonny Evans
MW
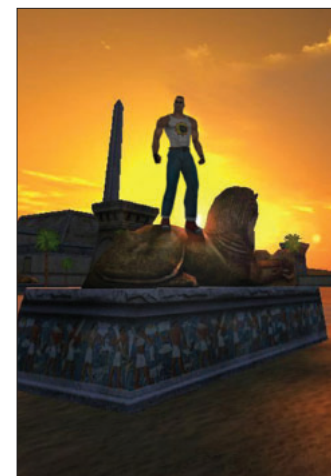
Left, top
Sky Tracer 2.0 (left) includes a new "SunSpot" control allowing users to enter specific time, date and global positioning data to generate accurate sun positioning.

Below, far and near left
OpenGL previews of sprites offers designers real-time previews of complex sprite-based Hypervoxels – animation solutions that don't rely on geometric structures. With built-in modes and patterns, the feature simplifies the creation of realistic smoke and fire effects (above, left), and accelerates the speed of rendering volumetric light scenes by up to 500 per cent (left).

Farm it out
This eight-strong Power Mac G4 server-farm powers the Isle of Man's St Ninian's School computer network.

'Isle of Mac' first class

Apple's strategy for the global education market can be seen in microcosm on the Isle of Man, where all computer-based schooling is Mac-based.

The Manx Department of Education (DOE) has installed and networked 2,000 iMacs and set-up a server-farm of Power Macs running Mac OS X Server. Of the island's 800 teachers, 550 are equipped with PowerBooks.

The man behind the island's Mac initiative is John Thornley, teacher and Isle of Man Department of Education ICT advisor. He's

Free Web-filter for iTools users

Intego is offering Content Barrier, its Internet-filtering application, to members of Apple's iTools online services free of charge until October 1.

The application – reviewed in *Macworld* September 2001 as part of the Internet Security Barrier bundle – is available to users who fill out a form on the company's Web site (www.intego.com).

It fills the gap left when Apple closed KidSafe, its iTools Internet-filtering program for children. This service was terminated in August because of low usage, according to Apple.

After filling out the form, Intego will send an email with instructions on where to download the product.

Internet Security Barrier usually costs £79, and Content Barrier is £35 (both prices include VAT).

championed the Mac since 1987, and, in 1998, was instrumental in helping the DOE set up a computer system for the Island's schools.

But the person responsible for the vast Mac network is Janette Kendall, who manages the 1,200-Mac network. If a PowerBook goes wrong, she diagnoses and remedies the problem remotely from her iMac, using Apple's Network Assistant.

Kendall also upgrades software on all 1,200 iMacs from her office in a single day. Maintenance is also slick, as she can call on a stockpile of Macs that are on-hand to replace faulty units – thus saving the cost of a service contract.

Typical of the island's Mac-powered schools is Saint Ninian's High School. It has two buildings a mile apart and teaches 1,100 students in seven age groups. Over 200 Macs are installed, including 188 iMacs and 89 AirPort-equipped PowerBooks for teachers, with 25 laser printers and 15 scanners. There are also eight G4 Servers and an AirPort network.

Class action

Pupils use the Mac OS's networking features to save work, and to password-protect files on a server. They can also access work from any Mac, in any classroom in any school on the Island. Macs are used as educational tools for every subject, with applications installed to suit the subject.

Jim Hunter, Head of ICT at St Ninian's, is happy with the Mac

implementation: "We decided the Mac is the best teaching platform. Using PowerBooks and AirPort allows us to use email, plan lessons, and sometimes conduct them using projectors. Also, teachers can share course material."

Ballacottier Primary School, meanwhile, opened just two years ago. It's a medium-size school with seven year groups and a total of 200 students, including 28 nursery school-age children.

The school has 20 iMacs, ten iBooks, four AirPort Base Stations covering each floor of the building, and a Power Mac G3 server.

"Four year olds can log-in and play games, and by the time they're ten, they're able to do spreadsheets or database activities," says head teacher John Rhodes. **MW**

Words and pictures by Kunihito Sugimoto, of Mac Fan Net (Mainichi Communications).

Apple does its homework
Clockwise from bottom left: Janette Kendall who manages the 1,200-Mac network; a Mac-run language lab at St Ninian's High School; a youngster enjoys iBook-based lessons at Ballacottier Primary School; more Ballacottier pupils in an iBook and iMac-based lesson.

HP targets designers with £700 A3+ proofer

Apple repairs Windows QT

Apple has released the QuickTime ActiveX control for Microsoft's Internet Explorer – designed to make QuickTime work in future Windows versions of Internet Explorer. This glitch occurred because Microsoft chose to fully implement ActiveX in future releases of Internet Explorer for Windows.

As well as sidelining Sun's Java standard, Microsoft no longer supports Netscape's plug-ins standard, which it supported till now in Explorer. QuickTime used the plug-ins feature in order to run with Explorer. The ActiveX control means that Apple's cross-platform multimedia standard runs on Windows PCs once again. This problem never affected Macs, but is a sign of Microsoft's increasing dependence on proprietary standards. **MW**

Hewlett-Packard is set to rock the colour-printer world with a new family of low-cost, high-quality PostScript inkjet printers aimed at graphics professionals. Colour accuracy, high-speed and affordability are the three main inkjet desires for designers, and HP claims its thermal Designjet A3+ series beats the competition on all three.

The Designjet 10ps is aimed at individual graphic designers, or small workgroups of up to three people. With a second 250-sheet paper-tray and server-based RIP, the 20ps is aimed at larger workgroups. And the 50ps – with Heidelberg pre-press RIP and network card – is targeted as a pre-press solution.

The Designjet produces full-colour continuous-tone images, with its six-colour (CMYK, light cyan, light magenta) printheads containing 304 nozzles per head – delivering a four-picoliter ink drop. Epson's Stylus Pro 5500 – the Designjet's main rival for the graphics market – offers a three-picoliter ink drop. The number of nozzles increases print speed. A smaller drop-size reduces visible grain, and smoothes colour transitions – especially where photo quality is key, such as in skin tones.

The Designjets print a full-colour A3 page in four minutes in Best mode – at least twice as fast as Epson's Stylus Pro 5500, according to HP.

But the real eye-opener that distinguishes HP's Designjet from Epson's Stylus Pro 5500 is its price. HP's Designjet 10ps (with built-in

PostScript RIP) costs just £708 (ex. VAT); the 20ps, £1,236; and the 50ps, £2,216. In comparison, Epson's Stylus Pro 5500 with Fiery RIP costs £3,495. Epson's lower resolution Stylus Pro 5000 (with RIP) costs £2,073.

HP claims an A3 print on glossy paper should cost as little as £2.50. At present, repro houses charge ten-times as much per digital proof.

Colour consistency
HP envisions a remote-proofing digital workflow, whereby a graphic designer prints a top-quality proof in his or her studio on a Designjet 10/20ps, and sends via the Internet a job-ticketed colour-managed PDF (containing content data, colour

profiles and print settings) of that job to the client to output on their 10/20ps. This should save the designer having to send proofs via courier. The final job can then be emailed/ISDN'd to the commercial printer's Designjet 50ps, so that designer, client and printer all have consistent-colour proofs.

Keen to tap into the Mac-dominated graphic-design market, HP collaborated with Apple on the Designjet's industrial design. The Designjet will work under Mac OS X's Classic environment at launch, with OS X-native drivers by December. **MW**

Agfa quits scanner markets

Agfa is withdrawing from the consumer and mid-range professional scanner markets – discontinuing production and development of its SnapScan and DuoScan (pictured) product families. Only Agfa's very high-end professional-level solutions, the T5000 (£14,400) and XY (£23,495) scanner families remain as product lines. Agfa will honour outstanding 12-month warranties, and continue to provide a repairs service for discontinued products for the next five years, as required under UK law.

Agfa refuses to make a statement. It is widely believed that the company could not create a profitable business in the consumer-scanner market, due to intense competition and a savage price war. Industry watchers say Agfa

cannot match consumer expectations on price while delivering the standard the company wishes to maintain. The decision affects consumer scanners in both the Mac and PC markets.

Agfa's decision could also reflect the softening of the broader consumer-personal-computer market. Gartner Dataquest recently released figures that show that European PC sales have declined by 4 per cent during the second quarter 2001 – the first recorded decline in sales in the sector. UK sales dropped by 7.3 per cent. **MW**

Mix and match
Steinberg's products – such as Halion (above, left) – are best on Mac OS 9.0.4. Meanwhile, TC Works – publisher of Spark (centre) and Spark Mercury (left) – is 'excited' by OS X's audio power.

Going Native
Native instruments – publisher of Reaktor (above, left) and Absynth (above, right) – is committed to Mac OS X, planning its first launch of Carbonized products in the first half of 2002.

Mac OS X reverberates

to sound of the crowd

Audio has long been a strength of Macs – but OS X promises to take Apple's pro-audio market share to new levels. Jonny Evans investigates.

Apple's claim that Mac OS X is the best Mac OS ever for running audio applications has been backed up by leading industry research – as audio solutions creators are preparing to take advantage of its capabilities.

Apple claims Unix-based OS X provides Macintosh users with "a superior listening experience", and developers "with the OS-level CoreAudio system that frees them from relying on third-party audio and MIDI protocols in their applications".

CoreAudio is the new system-level audio framework that provides services for audio applications and peripherals. It processes and sequences sounds, and furnishes audio output.

A recent Peabody Institute report confirms that OS X supports consistent, stable latency speeds, even when running multiple applications.

Latency is the delay between reading tracks from the hard disk and replaying them to the musician. Previously, companies built their own solutions to combat such data-loss, but CoreAudio brings this into Apple's domain for the first time.

The report's authors state: "Mac OS X was the second-best performing system when running the test application, and the best when running several applications at once. OS X allows multiple programs to access the soundcard concurrently. Only an experimental system called Linux Audio Application Glue API provided comparable performance."

Memory grand
Developers are optimistic about the possibilities of Mac OS X's protected memory, multiple-processor support, and usable User Interfaces that don't affect CPU load.

Leading the charge of companies launching OS X audio products is Bias, which is preparing OS X versions of Peak and Deck (see below).

Sibelius Software is is planning to release a Carbonized version of Sibelius. CEO Ben Finn told *Macworld*: "The Mac is very strong in our market."

Another music-notation stalwart embracing OS X is Coda, publisher of Finale, which is working on a Carbonized version of Finale.

An alternative to CoreAudio is an unofficial MIDI driver for OS X called MusicKit, that's being ported from NeXT. This is object-oriented software for building music, sound, signal processing, and MIDI applications. Though the port is incomplete, MIDI and score-file playback do work, and the developers say the program is "close to completion".

Meanwhile, FireWire development for OS X is progressing exponentially. Nick Howes, of Yamaha's R&D department, said: "We're working very closely with Apple on full implementation of the mLAN IEEE1394 protocol in Mac OS X natively."

Yamaha is developing its own variant of FireWire, dubbed mLAN. This will let musicians set-up instruments on FireWire-based networks, transferring information and mixes between them in a kind of networked digital symphony.

However, some audio industry figures remain cautious, claiming OS X is still in its infancy.

Paul White, editor of professional-audio magazine, *Sound on Sound*, told *Macworld*: "All we know about OS X is that virtually no existing software seems to run on it, and there seems to be problems with OS X emulation mode in a lot of cases."

Both DigiDesign and Steinberg recommend that their customers use OS 9.0.4 rather than 9.1 because of problems running their applications in emulation (Classic) mode. It's not clear yet whether Mac OS 9.2.1 (see page 26) repairs these glitches.

Steinberg will release applications for OS X only after Apple has fully implemented the device controllers in CoreAudio.

A Steinberg spokesperson said: "Presently, there are no drivers for audio and MIDI hardware from the hardware manufacturers, so releasing an unusable OS X application is not very useful to our users. Native OS X drivers will soon be available for our hardware devices as well."

Steinberg has been working for a year with Apple on porting its key applications – Cubase and Nuendo – to OS X. Steinberg has confirmed that a Carbonized version of Nuendo has been built, and also that the next major revision of Cubase will be Carbonized.

News at X
Apple will release Mac OS X 10.1 this month. The release is reputed to fully implement a number of essential system-level features, and most developers agree that it will provide a far more solid base to which to bring both their hardware and applications.

Gerhard Lengeling, founder of Emagic – whose Logic Audio will be the first audio app to ship to OS X – told *Macworld*: "All current hardware-related drivers that use the ASIO APIs are presently incompatible with OS X. This is due to differences within the new operating system.

"Manufacturers are discussing whether these standards should be ported to the new operating system.

There are advantages in doing so, but this would result in several co-existent and competing standards. This is an imperfect solution. Emagic wants a common standard."

Apple's own notes about CoreAudio (http://developer.apple.com/audio/coreaudio.html) show it's trying to support all current standards, at least during the migration to OS X.

Native Instruments product manager Jake Mandell said: "We will announce OS X versions of our products in the first and second quarters of next year."

Samplers
BitHeadz will release OS X versions of its sequencing and sampling products, Unity, Retro and Phrazer in the autumn, with other applications to follow.

Mark Of the Unicorn is also working on OS X support, marketing director Jim Cooper said: "We're busy porting our products to OS X. We're aiming to give our full support to the platform." **MW**
Jonny Evans
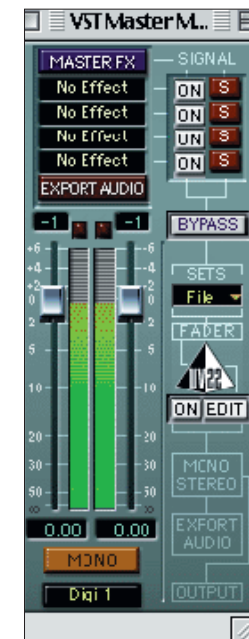
On key
Steinberg confirms it has been working with Apple on porting Cubase (above) and Nuendo – to Mac OS X.

Score with 3 audio gems on the CD

Among the mountain of goodies on this month's main cover-CD are three top audio applications:
■ There are two trial versions of Bias (www.bias-inc.com) products to explore – Deck 3.0 ($399) and Peak 2.6 ($99) for Mac OS 8-9.x. Bias is the first audio-application developer moving to Mac OS X.

Bias Peak is a two-track digital-audio editing and processing application. The Carbonized version is scheduled for release in November. A Carbonized version of Bias Deck – the company's multitrack audio-editing, mixing, and signal-processing program – is anticipated soon after. Deck supports up to

999 virtual tracks, real-time automated mixing, and multiple plug-ins. Pricing and upgrade paths for the applications will be released as Bias approaches the end of the products' development cycle.
■ Igor Engraver is a powerful music-notation program for Mac OS from Noteheads (www.noteheads.com). **Included on the CD**
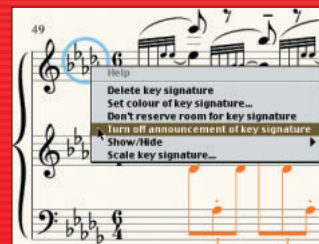
Igor Engraver

is a 30-day demo. The full application costs $295. The solution offers control over all aspects of transcribing music, yet has been designed with ease of use in mind.

With an eye on the Internet economy, Igor Engraver offers built-in support for e-commerce, so scores can be produced for Macs or PCs, and then published and exchanged over the Internet.

The application also supports MIDI playback, taking advantage of its ability to transmit information about how music is played to different MIDI-controlled devices, rather than the sounds themselves. **Jonny Evans**
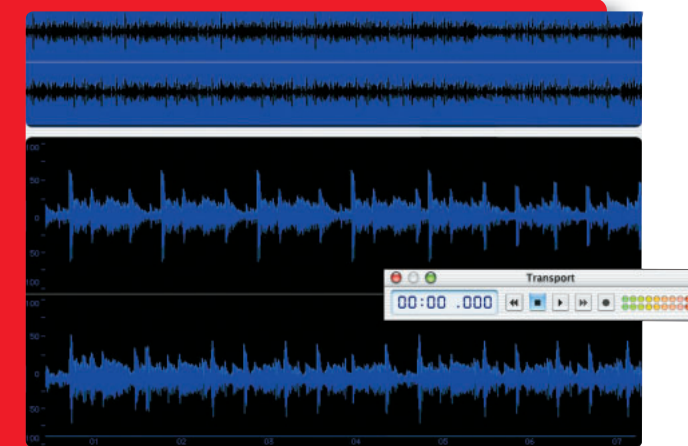
Bias Deck

Black-&-White Mac

Maelstrom 3.0.5 is the freeware Mac OS X version of Ambrosia Software's arcade-classic game. Players pilot their space ship through the Maelstrom asteroid belt. There's a selection of add-ons available, including a *Star Trek*-themed version.

Snapz Pro 2 is the most powerful, sensible, and economical screen-capture solution for the Mac, and this latest version of Ambrosia's essential screen-capture app comes with a host of useful features, including the capacity to capture QuickTime movies. This version is fully compatible with Mac OS 8.6 and above, as well as OS X. Registration costs $29 for the basic version; $49 buys the movie-capture capable advanced version.

From the makers of Mesa, the OS X spreadsheet application comes **FileMonitor**. This is an OS X-native freeware utility that allows you to monitor any number of selected files for changes. It's built for system administrators and software developers interested in process output or debugging information.

UpdateAgent 10.0.4 automatically downloads software updates for your OS, Control Panels, Extensions, Applications and Utilities. It's being constantly updated, and can help keep your OS X apps in order. Registration costs $49.95 per single user.   **MW**

F eral Interactive has confirmed its plans to publish hit PC Black-&-White for the Mac. The best-selling god-game is scheduled for release in the first quarter of 2002.

Black-&-White's game-play transforms players into gods who rule the eight tribes of Eden – guiding them through their daily tasks of working the land and fishing the sea. Players can choose to rule as an evil or good avatar, affecting lives with their decisions. Successful gods attract more followers; less successful deities may be quickly forgotten.

Gods create creatures as their physical manifestations in Eden. These need to be trained and kept an eye on – as a badly trained or poorly led creature can cause havoc.

Creatures have artificial intelligence (AI) so they can learn new skills and courses of action. Each tribesperson also has its own AI, which develops to reflect their actions – or those of their god.

The gaming world is seen using a graphics control system. This looks at the world from any angle, direction or height. It's scalable, with realistic light and reflection effects.

The game also features a messaging system that sends and receives email and phones out text messages. Using the Internet, players can import real weather conditions and apply them to Eden. The game can also be played over the Web.

More in the Mac box

Black-&-White took over five years to build, and has already been a phenomenal success in the PC world. To compensate for the wait, Feral promises that the £39.99 Mac release will have its own selection of exclusive Mac-only features – such as a boxing tournament. Black-&-White's UK distribution will be by Softline (01883 745 111).

■ Feral Interactive has also announced plans to publish Championship Manager 2001/2002 – the third update of its incredibly popular football team-management simulation at the end of October. This version will be Mac OS X native and contain an upgraded editor. The company is also publishing Sheep, Max Payne and Fly II. **MW**
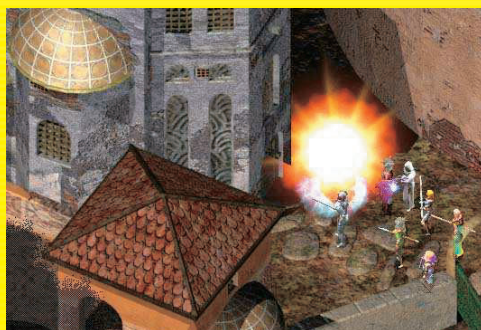
M acPlay has released Baldur's Gate II: Shadows of Amn (£39), the sequel to the popular Dungeons-&-Dragons-inspired Baldur's Gate I. The new version continues the storyline from Baldur's Gate, in which evil half-brother Sarevok was defeated and father Bhaal stopped from entering the Forgotten Realms.

The challenge in Baldur's Gate II is to fight the evil within. If players succumb to their destructive nature, they will destroy the Realm. However, players that resist violent temptations are rewarded with legendary status.

Players fight dragons and monsters in their quest for artefacts of power and wealth. It features include real-time game play that can be paused at any time. There are new monsters (such as a Half Orc), characters and magic to master. It supports up to six multiple players online, and is compatible with the latest 3D cards.   **MW**

A Mac version of Aliens versus Predator Gold Edition is promised for release at the end of September from MacPlay (£35). The game is based on the Aliens and Predator series of movies. Humans, aliens and predators must fight a genocidal war for the survival of their race. The action is set in a detailed futuristic environment, and every species has its own unique strengths and weaknesses.

The game includes the Millennium Expansion Pack – an enhanced version of the game containing nine new levels and various lethal weapons. The game features over 40 levels in a variety of environments, including alien temples and spaceships. It supports up to ten players in multiplayer mode, and features totally explorable scenarios with dynamic lighting effects. It works from Mac OS 8.6, and is Carbonized for OS X. **MW**

Motorola considers chip sale

Apple share-price: August 2001

Apple's AIM alliance partner and PowerPC developer, Motorola has been badly hit by the IT-sector slowdown, and is considering selling off its semiconductor business. Motorola has been largely responsible for the development of the G3 and G4 families of PowerPC chips, used by Apple in its current Macs. It is currently working on the G5 generation.

In the face of falling profits, and in an attempt to restore shareholder confidence, Motorola president Robert Growney told analysts that the company has a [as-yet undisclosed] schedule in which to turn around its loss-making semiconductor business.

Motorola's director of investor relations Ed Gams told Reuters: "If the gap isn't closed within the time-line, the board and senior management will consider a sale or spin-off. The semiconductor business must contribute a minimum six per cent return on equity. No segment of the company is sacred in terms of being protected from its obligation to contribute to that level of financial return. There are no sacred cows here."

The company's chip unit posted a $131 million operating loss in the first quarter this year, following that result up with a further $381 million loss in the second quarter. Sales are predicted to fall 15 to 20 per cent this year, but Motorola hopes to see recovery in the second half of the year.

Motorola and its other AIM partner IBM have taken different paths on their PowerPC roadmap. Motorola and Apple are big proponents of AltiVec, the PowerPC extension technology that Apple has branded as Velocity Engine. IBM (a potential buyer of Motorola's semiconductor business) has never appeared keen on AltiVec, concentrating instead on processing speed. IBM is expected to have 1GHz chips ready by the end of the year, with 2GHz chips to follow late in 2002.

Motorola's R&D spend is essential for Apple, as it strives to deliver industry-beating innovation in its Macs. Until now, Motorola execs have always described the semiconductor unit as a core business with the full strength of the company behind it.

In April, Growney asserted that Motorola would not sell the chip unit. Analysts estimate that sale of the unit could yield up to $9 billion. The company has shed semiconductor jobs in recent months, closing two US plants with the loss of 1,200 jobs.

Analysts at UBS Warburg can't see Motorola spinning-off the business before 2003/2004 at the earliest. **MW**

Business briefs

■ **Apple's iBook manufacturing partner Alpha-Top is to be acquired by Elitegroup Computer Systems in a stock transaction worth $234 million.**

■ **Hewlett-Packard is to acquire Compaq in an all-stock purchase valued at US$25 billion. After the merger, which is expected to close in the first half of 2002, the combined company would have annual sales of $87.4 billion and operating income of $3.9 billion.**

■ **HP reported an 89 per cent year-on-year decrease in earnings for the third quarter, on revenues of $11.8 billion.**

■ **Discreet is paying $16 million to take over development of Media 100's software range, including the Cleaner family of products.**

■ **NVidia announced a 53 per cent increase in revenue of $90m for the past quarter.**

■ **Blaming a severe decline in sales of its Jaz and Zip products, Iomega is to axe 1,250 employees – 38 per cent of its staff.**

■ **Almost four million UK homes have connected to the Internet in the past year, the telecoms industry regulator Oftel has revealed. 40 per cent of UK homes now have an Internet connection.** **MW**

Portable sales rise

IDC's report on PC shipments in Europe, the Middle East and Africa (EMEA) in 2001's second quarter places Apple at number nine in the region, with 154,000 units shifted. Analysts praised Apple for its focus on the portable-computing sector.

Sami Pohjolainen, IDC's research marketing manager for EMEA personal computing, said: "Apple will always have a place. Its mainstay has always been the graphic-design sector. [Apple CEO] Steve Jobs has a good nose for finding the right products at the right time."

These products include the redesigned iBook and PowerBook G4. Of 8.1 million PCs shipped in EMEA, 1.6 million were portables, though year-on-year, notebook sales grew only 6.4 per cent. Pohjolainen remarked: "Mobile computing is on the rise. Desktops will decrease as more companies buy notebooks."

The EMEA region grew just 0.3 per cent year-on-year, reflecting a global pattern of reduced consumer demand. The second quarter of 2001 saw some 29.7 million computers shipped worldwide, down 2 per cent year-on-year.

Pohjolainen continued: "PC markets are saturated. People with PCs won't need a new PC for some time. It is difficult to find first-time buyers. Telecoms and finance are traditionally the biggest buyers of PCs, but they've had budgets cut."

In the EMEA region, Western Europe shipped 6.5 million units during the quarter – 1 per cent growth. Though East and Central Europe racked up smaller shipments of 0.9 million, this is 11.75 per cent growth, the most significant in the region. The Middle East and Africa shipped 0.7 million units for the quarter, a fall of 15.1 per cent.

"The US market is even more saturated then the EMEA. The slowdown in the US has spread to Europe, and economic analysts believe that the EMEA will go into recession," the analyst warned.

IDC still predicts some industry-wide recovery, driven by increased demand for portables. The PC market's growth has slowed, "but we are expecting aggressive campaigns from manufacturers at the start of the new school term and at Christmas," he predicted. **MW**
Dominique Fidéle

Kodak's snappy pics

Kodak has launched this season's camera range, with a stress on ease-of-use and the introduction of a new storage standard.

New models in Kodak's EasyShare range include the DX3600, DX3900 Zoom, DX3700 and the DX3215 Zoom. The cameras use Kodak's recently introduced Camera Docking System. The USB device combines battery recharging and image-transfer facilities, and can also open software for print and email, as well as wiping images from the memory.

The entry-level 1.3-megapixel EasyShare DX3215 produces pictures that can be printed at up to 8-x-6-inches (20-x-15cm) – the equivalent of a resolution of 1,280-x-960dpi. The unit carries 8MB of internal memory, enough for up to 80 images at the lowest resolution. It has a 2x-optical and 2x-digital zoom, and introduces a combined MultiMediaCard (MMC) and Secure Digital Card (SD) memory-expansion slot. It's got auto exposure with shutter speeds between 0.25 and 1/1000 of a second. The camera costs £212.

Kodak's DX3600 is a 2.2-megapixel camera with a 2x-optical and 3x-digital zoom. It costs £297, and has 8MB memory built in with a CompactFlash memory card slot for additional data.

The £298 DX3700 is a 3.1-megapixel camera. It's images will print at up to 11-x-14-inches (28-x-35cm) at 150dpi. It's got a 3x-digital zoom, 8MB of internal memory, and also introduces MMC/SD memory expansion. The unit has the same shutter speed range as the DX3215.

Kodak's £383 DX3900 is a 3.1-megapixel camera, with a 2x-optical and 3x-digital zoom. It has both automatic and manual settings controls, including colour, black-&-white, and white balance. Kodak says the DX3900 has been designed with a quiet zoom and shutter for "candid" photography. It will also support accessory lenses with 37mm threads, can take eight pictures at 3fps, and offers longer exposure times than any of the other units in the range.
Kodak, 0870 243 0270

Show time
The DX3700 (top) and the DX6000 (bottom), along with the other cameras in Kodak's new range, ship with Kodak's Mac-compatible picture software, which offers slideshow views, image optimization and colour calibration. They also include USB and video cables, and have an automatic flash.

FireWire hub ready
Belkin's 6-Port FireWire hub offers six hot-pluggable FireWire ports with data-transfer speeds of up to 400Mbps. It can be used in conjunction with other hubs to connect up to 63 FireWire devices to a Mac. It costs £68.
Belkin, 01604 678 300

LaCie speeds FireWire
LaCie has developed a new FireWire-to-IDE (Integrated Device Electronics) bridge to double the previous transfer speed of its range of FireWire devices. Boosted by 35MBps transfer speeds, LaCie claims the new implementation is twice as fast as FireWire has generally been able to support.
LaCie, 020 7872 8000

Converted to Euro
Euro Assistant Pro is a European currency converter for the Mac, capable of conversion between 11 pre-programmed currencies. Currencies can be displayed simultaneously, and new ones can be added to the supported list. Prices are updated over the Internet, but this feature times out after 15 days when using the demo. It costs $15.
MaBaSoft, www.mabasoft.com

Projector weighs in
InFocus' LP340B projector weighs 3.2kg (7lbs), offers 1,300 ANSI lumens brightness and integrates Digital Light processing technology from Texas Instruments. It's controllable through six on-board buttons, and can accept image information from Mac, PC or VCR. The LP340B costs £2,195.
Infocus, 0800 028 6470.

DiskSurveyor saves space
DiskSurveyor uses a graphical interface to show Macintosh users what's taking up space on a hard drive. It will create text files listing all the files on the hard drive, or any other volume. It has network-management capabilities, and has been designed to help users clear trash from their hard drives. Registration costs $15.
Twilight Software, http://twilightsw.com

Graphire pad hits 2

Wacom has launched Graphire2, the second generation of its consumer mouse and pen set. The set consists of a "battery-free" cordless mouse, a pressure-sensitive pen and a graphics tablet that's about the size of a mouse mat. The tablet connects to the Mac via USB.

Graphire2 features absolute positioning. This works by sending a radio signal to locate tools on the tablet surface, and returns location, pressure and other information to the Mac. The technology and tablet offer a 1,000dpi resolution. The active area of the tablet represents the full display of any screen size. The Graphire2 features a transparent overlay design that offers an easy way to trace images. It also has a detachable pen stand.

The pen has 512 levels of pressure and an eraser. It also features a double side-switch, which can be programmed for specific functions in different applications.

A new software driver, version 4.6, offers more control and improved performance, Wacom claims. It offers both acceleration and speed settings for the mouse.

Wacom believes the product can help people suffering from Repetitive Strain Injury, as using the pen provides access to "all the features of a mouse, while imposing less strain".

For budding desktop-artists, Corel's Painter Classic ships with the product. Available at the end of the month, the Graphire2 costs £64 and comes with a two-year warranty.
Computers Unlimited, 020 8200 8282

Wired Web pics

The FireWire StealthFire Web Cam from iRez is available from AM Micro. It's capable of transmitting data at 400MBps, and can capture 30 frames of video per second at a resolution of 640-x-480dpi. Three versions of the camera are available: the standard StealthFire Web Cam (£120); the StealthFire PRO Web Cam (£136), which includes a microphone and headset; and the StealthFire PRO Bundle (£145), which also includes a PCI FireWire card.
AM Micro, 01392 426 473

Apple updates

Apple has released **Mac OS 9.2.1** (see page 26), a US English OS update for **Final Cut Pro** and an all-language **iDVD 1.0.1** update. The company also updated **NetBoot** in recent weeks. The iDVD update fixes some bugs.

The Mac OS X Server NetBoot Extras release includes NetBoot Extension and NetBoot Disk Unmounter. Both of these extensions can be used with Mac OS X Server 10.0 and NetBoot 2. The extension ensures that all IP connections are terminated at Shutdown, so the machine can be rebooted immediately. The NetBoot Drive Unmounter can make the local hard disk on a NetBoot client computer unavailable to other users. Apple has changed its updates site. Visit www.macworld.co.uk/updates for more information.

Third-party updates

Aurora Fuse 2.0.2

This update is for the Aurora Fuse digital-video capture and playback card. It offers improved playback performance when used with high-bandwidth applications, such as ProTools. It also improves compatibility with MJPEG-A files created by other cards.

Conflict Catcher 8.0.9

This updates the extensions, plug-ins, font, filter and control-panel management application. It adds Mac OS 9.2 All and Base sets, and updates the Clean-Install System Merge for OS 9.2. It also fixes a problem in the sets activated by the Mac OS X start-up set feature. This update adds a selection of file definitions into the Reference library.

D1 Desktop 64 v5.0

This updates the software package for Digital Voodoo's Digital Voodoo D1 Desktop 64 SDI 10bit video cards. It improves overall performance and adds presets for Apple Final Cut Pro 2.0.

Flexible monitor

Eizo has released the 15-inch TFT-LCD FlexScan L365 monitor.

Eizo claims its new offering is 42 per cent brighter than previous models. It's got a 0.297mm pixel-pitch and a maximum XGA (extended graphics array) resolution of 1,024-x-768 pixels.

The monitor is fully controllable, with full-screen scaling, smoothing functions and colour. It has temperature, hue, gain, and saturation controls. It has 160-degree horizontal and 150-degree vertical viewing angles.

The monitor's two inputs – one digital and one analogue – allow two Macs to be connected, although only one at a time can control the screen.

The LCD has been designed not to hog desk space. Extra features include built-in stereo speakers. The £429 FlexScan L365 is arm or wall mountable.
Eizo, 01483 719 500

Image CD Black out

In the Black is a new collection from Digital Vision. This royalty-free business catalogue of 30 CDs contains photos, digital art and illustrative images. Each disc holds 50 to 100 images. In The Black reflects modern business environments, including working environments – home, office and even call centres.

The collection pursues other themes including the Internet and modern media, and women's changing roles in the work place. Images are conveyed with humour, according to the company, and are selected according to sharpness, composition, light, framing, and colour contrast. Each disc in the collection costs £499. Single images cost £49 each.
Digital Vision, 020 7378 5555
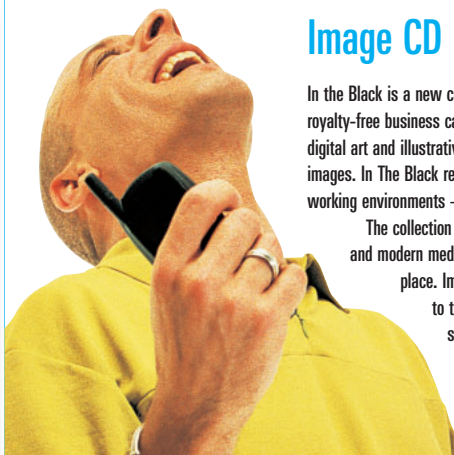
Projectors are Epson's light

Ⓔpson has announced two new projectors – the EMP800 (£3,799) and the EMP810 (£4,199). The former is a 1,500 ANSI Lumens projector, while the EMP810 offers the brighter option of 2,000 ANSI Lumens.

Both models feature a projection lens that enables a large screen (60 inches) to be projected within a shorter distance (1.8 metre). They also use Colour Reality, a colour-processing technology that improves colour uniformity, produces clear pictures and reduces noise.

There are six projection modes on both the EMP800 (right) and EMP810 – including sRGB for colour management, a high brightness mode, presentation mode for colour reproduction in dark environments, and meeting mode for high contrast text and charts. The EMP800 is a true XGA (Extended Graphics Array - 1,024 x 768) projector with full support for other resolutions including VGA (Video Graphics Array) to UXGA.

The EMP-810 has additional features, including a 0.9-inch Dream Panel that reduces flicker, according to Epson. This projector also has a higher zoom ratio, which allows the image size to be altered without moving the projector, and a new video-wall application, that allows four projectors to display a quarter of the image each.
Epson, 0800 220 546

Alchemy's ATA boon

Miglia Technology has released the Alchemy ATA100 PCI card for PCI-based Macs. Employing an ATA 100 connectivity standard, the PCI card's two channels each offer a 100MBps bandwidth. The Alchemy ATA100 PCI (IDE) card connects up to four hard drives, CD drives or other storage media to Macs.

It's possible to boot on a hard drive attached to the £109 Alchemy card to upgrade to Mac OS X. No drivers are required, as the card is recognized natively by the operating system.
Miglia technology, 0870 60 70 540
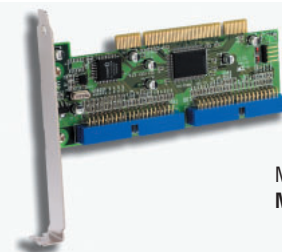
Phaser set to stun

Ⓧerox has launched the Phaser 7700 colour laser-printer, which offers print speeds approaching 22ppm in colour and monochrome, with resolutions of 1,200dpi.

The printer sports a PowerPC G4 500MHz processor, and has a first-page print-out time of less than 15 seconds in colour and 10 for black-&-white.

The printer has a number of features including: CentreWare Web, an enterprise-wide printer-management tool that installs and configures all printers on a network; an embedded Web server that remotely controls printer management via any Web browser; and 10/100BaseT Ethernet. The printer has auto-duplexing, auto colour and automatic paper calibration.

It's fully equipped with colour-management software – sRGB colour matching, ICC and ICM support, TekColor Dynamic Colour Correction, ColorSync, Adobe PS Level 3 and Pantone certification.

Three configurations are available: the £6,699 Phaser 7700DN; the £7,849 7700GX; and the £ 8,919 7700DX.

The PhaserGX has 256MB of RAM, image-manipulation software PhaserMatch and one A3 and two A4 lower tray assemblies. The PhaserDX has 256MB of RAM, features one A3 tray and two A4 trays, and a finisher-stacker-stapler.

All three models have an additional 500-sheet tray, and memory is expandable to 512MB. A3 trays hold 500 sheets of paper, while A4 trays hold 2,500 sheets.
Xerox, 0870 241 3245

Looking good on paper
The Phaser 7700DN is a desktop printer featuring 128MB of RAM and an A4/A3 paper tray.

3D-app well formed

3D solids and surfaces modeller Form-Z 3.8 has been released by Autodessys. Through its "friendly" interface, Form-Z offers 2D and 3D form manipulation and sculpting capabilities.

Multiple windows, tear-off tool palettes and unlimited and selective Undo and Redo operations are supported. Customizable key shortcuts, pre-pick and post-pick modes, and integrated 2D and 3D operations all feature.

Dynamic 3D solids and 2D shapes include rectangles, n-sided polygons, circles, ellipses, arcs, freehand drawings, splines and double lines.
Autodessys, www.formz.com

Smooth operator
Form-Z 3.8, according to the company, compares favourably to more expensive modellers. It now allows smooth parametric objects to be created, as well as polygonal objects.

Adept ends footnote hell

Adept Scientific has released EndNote version 5. EndNote 5 is bibliographic software that will search Internet libraries for references. New features include Cite While You Write, which locates and inserts citations or quotes while text is written, without requiring additional user commands. EndNote 5 offers instant formatting, indexing and other functions. Other features include a multilingual Spell Checker, with discipline specific dictionaries. Academic pricing is £169, while commercial is £225. There's a demo on this month's cover CD.
Adept Scientific, 01462 480 055

Font-astic view

FontViewer lets you view all of the fonts in a fonts folder. Fonts can be displayed in various sizes and styles, and in a slide show. They can also be viewed in almost every type of environment, including on a desktop and in menus and icons. Registration costs $5.
Creative Box, www.creativebox.net

Format discs for Macs

WSKA has released MacDrive 2000 data-transfer software. This lets Windows users format Mac disks and save a range of file types to them for data transfer between Mac and PC. The £28 MacDrive 2000 lets Windows users read clip art from a Mac CD-ROM, and read and write animation and audio files onto Mac-formatted back-up media.
Gem, 0127 982 2800

Hold-up tracks cash

Hold-Up is a personal-finance manager for all current versions of the Mac OS. It supports several accounts, will schedule transactions and can print reports. It supports password protection, and has a search feature. It also supports multiple currencies and unlimited numbers of transactions. Basic ($20) and Pro ($30) versions are available.
Hold-up, http://www.hold-up.fr.st

Printer monitors images

Sony has released the DPP-SV77 portable digital photo-printer. It measures 242-x-87-x-267mm and weighs 2.5kg (5.5lbs). It has a 3.2-inch LCD image-viewing monitor, a print resolution of 403-x-403dpi and takes 90 seconds to create 6-x-4-inch prints. 4-x-3.5-inch prints are produced in 60 seconds.

Prints are heat and light resistant, and can be in matt or gloss finish, according to Sony. Print options include bordered or borderless prints and photo calendars. Slide-shows can also be created. Prints can display stored messages. A touch-pen writes on the LCD screen, which the £336 printer records and superimposes over the image.
Sony, 08705 111 999

Hub deserves credit
Keyspan's 4-port Mini USB hub is shipping. It supports both bus powered and self-powered devices. The hub is 1cm thick, and about the size of a credit card. Available in black or silver, the device has a USB cable stored within the case. Available in September, no UK price for the $49 hub has been announced.
AM Micro, 01392 426 473

Dock moves to OS 9
Like the Mac OS X Dock, A-Dock acts as an application switcher and launcher for Macs running OS 8.5 to 9.x. Three easy-to-navigate areas offer access to a user's favourite applications, other applications and the Trash. A-Dock can be minimized to save space. The application costs $7.
Jerome Foucher, http://come.to/beastieit/

Monitor gets personal
NEC-Mitsubishi and Digital Odyssey have teamed up to offer personalized LCD monitors. Digital Odyssey uses a four-stage coating process to re-coat NEC-Mitsubishi monitors in custom colours and effects. Logos can be grafted on by request. The conversion costs between £495 and £10,000. All monitors offer a three-year warranty.
Digital Odyssey, 01865 711 944

Lexar adds image memory
Lexar Media has released a 512MB Type I CompactFlash memory card for digital cameras. It has a write speed of 1.8MB/sec, and is compatible with a range of digital cameras including: the FujiFilm S1 Pro; Nikon D1; and Olympus E-10. Each card costs £659.
Lexar Media, 01483 722 290

Great Dane gets matey
Dane-Elec has launched zMate, its USB memory-card reader and writer. Features include fast upload and download, and the ability to drag-&-drop files between Macs and media. At £25 each, three versions are available – for CompactFlash, SmartMedia and Secure Digital cards.
Dane-Elec, www.askdirect.co.uk

Epson in for the fall

Epson has launched its autumn scanner and printer line-up – the Perfection 1650 and 1250 scanners and the Stylus C80 and Photo 810 inkjet printers.

The £89 Epson Perfection 1250 A4 scanner has an optical scanning resolution of 1,200dpi and offers 48-bit input. Two versions are available, the standard model and the Perfection 1250 Photo. The latter provides a 65-x-80mm transparency unit for scanning 35mm negatives, film and transparencies. Bundled software includes Twain 5.5 scanning software, ArcSoft PhotoImpression 3 imaging software and Epson Smart Panel for customizing the start button to launch applications, including scan to Web, scan to email or optical character recognition.

The £169 Perfection 1650 A4 scanner offers 48-bit input and output and has a scanning resolution of 1,600dpi. It uses an in-built ASIC Hyper Processor to scan images up to six times faster than other devices, claims Epson.

It can produce over 281 trillion colours and 16,000 shades of grey, and images can be downloaded to the Web. Also available in two models, the standard model is for general scanning, while the Perfection 1650 Photo adds a transparency unit integrated into its lid. Both configurations can be upgraded to a 4-x-5-inch transparency unit.

Available now, the scanner is bundled with software including Epson Twain 5.5, ArcSoft PhotoImpression 3 imaging software and Adobe's Photoshop Elements.

The £179 Epson Stylus C80 is a USB printer that has a 150-sheet auto-feeder for large print runs. Its print resolution is 2,880dpi, and print speeds reach 20ppm in black and 13ppm in colour. The Photo 810 has a resolution of 2,880-x-720 dpi, and can print 12ppm in black and 11.7ppm in colour.
Epson, 0800 220 546

Colour separation
The Epson Stylus C80 (above, right) is the first desktop four-colour inkjet to use separate ink cartridges, claims Epson. Pigment inks are used for both black and colour, delivering waterproof and smudge-proof prints. The C810 is pictured below.

Projector at the Sharp end

Sharp's £11,900 XG-V10XE LCD projector is powered by two 200W UHP lamps, which deliver 4,000 ANSI lumens brightness. It works with alternating lamps, using Advanced Intelligent Compression Systems (AICS), which handle a range of signals up to 1,280-x-1,024dpi with compression.

Sharp Advanced Presentation Software (SAPS) ships with the unit. This lets the unit connect to a Mac for remote diagnosis.

SAPS allows the projector to be daisy-chained to up to 250 XG-V10XEs – controlled from a single Mac. Sharp's motorized lens shift minimizes keystoning, allowing the projector to adapt to conference room or auditorium settings, according to the company.

Projectors can be customized to display a company's logo during start up, and to manipulate images during presentations with zoom and freeze capabilities.

Inputs include two RGB, one digital-video interface and two video ports for displaying composite S-video, or component video. The projector also supports video over data picture-in-picture capability for video conferencing.
Sharp, 0800 262 958

Backwards compatible
The XG-V10XE's six lenses include a rear-projection lens for a conference room, and a long-throw auditorium lens.

CTX makes welcome return to Mac
CTX has returned to the projector market, after two years absence, with the launch of the CTX PS-5100. Weighing just 3.5kgs and encased in a silver box, the 1,000 ANSI lumens projector supports resolutions between 800-x-600 and 1,024-x-768dpi. It supports SVGA (Super Video Graphics Array) and XGA (Extended Graphics Array). The projector has a 24-bit (16.7 million colours) colour palette. Audio is built-in, as is S-video, composite video and stereo-audio connectivity. It cost £1,499.
CTX, 01923 810 800

Zooming in
CTX claims the PS-5100 has a lamp life of 4,000 hours. It includes a zoom function.

Scanners go flat out

Canon's autumn collection includes two A4 colour flatbed scanners – the CanoScan D2400U and the D2400UF – the Bubble Jet S500 colour printer, and the CanoScan FS4000US film scanner.

The D2400U scanner offers 2,400-x-4,800dpi resolution, with a selectable resolution of 25 to 9,600dpi. The 48-bit scanner has the "fastest scan time in its class" according to Canon. It uses a six-line Hyper CCD (Charge Coupled Device) sensor for high-quality image capture.

A film adaptor for 35mm and medium format films up to 4-x-5 inches in size is available as an optional extra. The scanner costs £237.

The CanoScan D2400UF is identical to the D2400U, but includes the film adaptor – it costs £280. Software includes Adobe PhotoShop LE; Arcsoft Photobase and PhotoRecord.

The CanoScan FS4000US film scanner for 35mm and APS films is available now. It offers a 4,000dpi resolution and 42-bit colour depth. The model hosts both USB and SCSI interfaces. The £594 scanner will batch-scan mounted 35mm films in groups of four. Up to 40 frames from an APS film, six frames from a 35mm film strip, or four mounted 35mm slides will fit into the scanning adaptor.

The Bubble Jet S500 printer offers 12ppm for mono text and 8ppm for colour text. The printers resolution is 2,400-x-1,200dpi, and it uses Canon's MicroFine Droplet Technology, which fires 5-picolitre droplets for sharp images and text, Canon believes.

Each ink colour is held in a separate tank. The unit automatically monitors ink levels, sounding an alarm when they need replacing. The £135 S500 USB printer can be networked to a 10/100 Base-TX print server.
Canon, 0121 680 8062.

Scanned alive
Canon's FS4000US is the company's highest resolution (4,000dpi) 35mm and APS film scanner. It features an "advanced" three-line CCD.

HP adds to scanner line

Hewlett-Packard has introduced the ScanJet 4400c and 5400c series of scanners. These comprise the 4400c, 4470c, the 5400c, 5470c and 5490c. Each features a dual sensor CCD with 48-bit colour scanning at up to 2,400dpi. For extra accuracy, the 2,400dpi CCD is supplemented by a 300dpi sensor for the 4400c, or a 600dpi sensor for the 5400c series for fast scanning.

The 4400c, 4470c, 5400c, 5470c and the 5490c house a scan-to-CD button for single-click image archiving. Other buttons offer Scanning, E-mail, Share-to-Web (unavailable on the 4400c), Copy, Photo Reprint, Cancel and Power saving functions. The 4400c (£116) and 4470c (£92) both ship with Web-creation software from Trellix. The 4470c, 5470c and 5490c also have transparency adaptors. The 5490c also has an automatic document-feeder capable of scanning multiple documents at up to 7ppm. Other models cost £156 for the 5400c, £208 for the 5470c, and £274 for the 5490c.
Hewlett-Packard, 08705 474 747

Positive negative
HP's 5490c ships with a slide adaptor for 35m and negative.

UK's heritage
Heritage Image Partnership has added images from the British Museum to its library of pictures.

The collection is searchable, and also includes images from the Science Museum, the Royal Photographic Society, the British Library, the National Museum of Photography Film and Television, and English Heritage.

Images cost between £35 to £5,000 depending on useage.
Heritage Image Partnership: 020 7929 5581; www.heritage-image.com

David Fanning

Macintosh users may be in the minority, but it's this that sets them apart from the rest – it's part of what makes Macs unique.
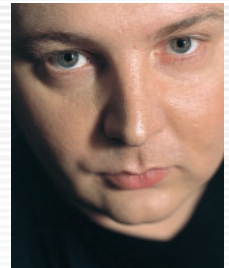
Minority leader

Apple recently posted an interview on its Web site with a guy called Jason Toutolmin. He spends his time travelling the world, watching, reporting and filming extreme-sports events (see **www.wcsk8.com**).

Toutolmin is featured on the Apple site because he uses Apple equipment to do his job. He has a PowerBook G4, and uses iMovie to edit his footage. The interesting thing isn't that he uses a Mac, but that he claims all the top skateboarders do. From Steve Caballero to the poster child of skating, Tony Hawk, they all use Macs.

I felt pretty good about that, as an ex-pro-skater myself (no really, I was... in 1978), I think it's cool that the computer of choice for skaters is the Mac. In my experience, they tend to be among the more creative and imaginative people I come across.

Of course, the other creative and imaginative people I meet are people paid to be creative and imaginative – designers of all sorts. They, too, often choose the Mac, because it helps them work to their strengths.

But, like it or not, PCs can do most things a Mac can. So why, exactly, do creative people like Macs? It's not just because Macs look better than PCs, as it wasn't that long ago that they were just as ugly. So is as it the simple and intuitive interface? Possibly, though the gap has narrowed between Mac and Windows operating systems in this regard.

No. It's because Apple represents the underdog, the freethinker, the unconventional and the outsider. Doomed forever to be a minority, Mac users are by our very nature not mainstream. In a funny way, this makes the Mac a computer for the people, assuming most of us consider ourselves to be individuals. I'm not sure what I would do if I woke up one morning and found that 90 per cent of the world was using a Mac. I might be tempted to use UCLinux – just to be different.

It's no accident that Hollywood prefers to feature Macs in movies. I'm not sure whether the arty set-designers insist on them, or perhaps the scriptwriters – whoever, you can bet it's somebody creative. If you haven't seen *The West Wing*, the show where the President of the USA isn't an imbecile – it's the stuff of fantasy – then you should. You will see the good guys – the Democrats – using PowerBooks. The bad guys – the Republicans – use Dell laptops. It is the equivalent of the old cowboy movies, where the goodies wear white, and the baddies are decked in black.

In *Independence Day,* it's a Mac that saves the planet. In *Jurassic Park,* it's a PC that unleashes the dinosaurs. In *Mission Impossible,* the impossible is achieved with Macs. In *Razorfish,* the ruthless terrorists use PCs. Do you see a pattern emerging? Macs are good, PCs are bad.

So, given that Macs are the coolest, most creative and just plain brilliant computers ever, why doesn't everybody buy one? I don't have an answer. Perhaps if I did, I'd get a call from Steve Jobs – and the best parking bay in Cupertino. All I can imagine is that most people just don't get it. Maybe it's because once they've been forced to learn how to use use a PC, the process was so horrible they just don't want to repeat it.

Most people over 30 first experience computing at work. Some bright spark comes in and installs PCs all over the office, and then has a career fixing them. I've seen it happen. The poor saps who have to use the systems are at the mercy of the IT guy, who can lord it about being oh-so-very helpful. The users either bend to his superior knowledge, or learn how to fix the damn things themselves.

The result is that people who don't know much about computers think they are doomed forever to be helpless and sad. Or they learn more about the systems they work with, and become proficient at dealing with the rubbish that Windows and PCs presents them with.

Now, present these people with a Mac. The person who doesn't know much about computers will ask a PC support person for advice. You know where that will lead. The proficient PC users have so much time invested in figuring the things out, switching to a Mac would be a waste.

I've seen it happen. My own wife was nearly poached by the world of PCs. My wife of ten years, who has been using a Mac at home almost as long as I have, was thinking about buying a PC. Why? In her job, she spends a lot of time propping up a PC network. The IT guys are useless, so she has become proficient – even expert – at fixing them. Thankfully, the situation was saved by the introduction of the new iBook and an AirPort setup – nobody can resist its charms.

If this can nearly happen to a loved one, what chance does the rest of the world stand? Evil PC IT-managers are poisoning the minds of millions – only those who question their authority stand a chance. Of course, not everybody will question authority – one in ten, maybe one in twenty.

So that's why the Mac has never had a market share of more that ten per cent: there simply aren't enough people questioning authority. For things to change, Apple needs to Think Revolution, not just different. **MW**

> '**Apple represents the underdog, the free thinker, the outsider – by our very nature, we are doomed to be a minority.**'

Michael Prochak

Now that Napster has been tamed, the music-industry fat cats are turning Internet music in to a gravy train for the talentless.

One world-music

Frank Zappa once said that most people wouldn't know good music if it came up and bit them in the arse. Nowadays, arse kissing has replaced arse biting, and we're surrounded by a generation of swine and Caligula wannabes who think they can create stars out of a random assortment of egg-sucking dogs that have about as much musical talent as a month-old potato clock.

On an almost weekly basis now, we are subjected to the idiotic indignities of scams like Mel B's seemingly infinite gaggle of deluded karaoke clowns who seem to really believe that this is their moment.

Out of this cynical meat parade, neatly packaged by the usual industry pirates, we, the gullible public, are supposed to believe that nearly every minute of nearly every day, a star is born. Well, boys and girls, mummies and daddies, in real life, what's born every minute is one of PT Barnum's favourite s-words. And I can assure you that star wasn't what he had in mind.

Even out on the Internet, the promised land of new music and new talent, big-money dogfighting is enjoying a renewed surge of popularity. And if the sub-human puppies that already control the old media have their way, the Web will become just another shallow feeding trough. Out in the so-called frontier freetowns of People Sound, Garageband.com and Taxi, a new death star has appeared, in the guise of two joint ventures set up by the world's major record labels to distribute music online to consumers.

After pooling their corporate might to crush the likes of Napster, whose popular, free swapping of copyright songs has been ruled illegal, two new players called MusicNet and Pressplay are scheduled to launch this autumn as "for-pay" alternatives.

So, who are these saviours of music on the Net who've come to tame the wild, unregulated promise of unlimited and unbridled access and opportunity? Well, MusicNet, based on RealNetworks technology, is owned by none other than AOL Time Warner, the EMI Group, Bertelsmann AG and RealNetworks. Those crazy guys down at Pressplay are working with Microsoft – and the venture is owned by Sony and Vivendi Universal SA.

When asked what this is all about by those nice people down at the US Associated Press, MusicNet, Pressplay and all five major record labels refused to comment. The two joint ventures have indicated that they expect to charge consumers a monthly fee to get access to "streamed" music that they can listen to online but can't copy, as well as downloaded, or copied, songs from the labels' catalogues. Both have also indicated that their licenses from their label backers are "nonexclusive". And we all know how firmly committed to nonexclusivity companies like Microsoft are.

Fortunately, the US Justice Department has launched an antitrust investigation into these two joint ventures, and both are already under investigation by antitrust regulators in Europe, who in June stressed the need for a "diversity of service providers".

The probe will ostensibly examine potential anticompetitive problems posed by the "rival" ventures, Pressplay and MusicNet, and the government will also look into the major record companies' use of copyright rules and licensing practices to control online distribution of their music.

We've already seen how adept Microsoft is at getting unfavourable decisions reversed. And remember, although US lawmakers have also raised questions about whether the two new Internet services would harm competition, the five record labels involved represent about 80 per cent of all copyright music.

Let's look at this another way. When the potato crop in Ireland failed in successive years between 1845-49, it was the worst famine to occur in Europe in the 19th century. That's because over half of the Irish population had come to depend almost exclusively on the potato for their diet, and the rest of the population also consumed it in large quantities. A heavy reliance on just one or two types of potato greatly reduced the genetic variety that ordinarily prevents the decimation of an entire crop by disease, and thus made the Irish vulnerable. When a fungus arrived accidentally from North America, about 1.1 million people died from starvation or typhus and other famine-related diseases.

Microsoft's "one-variety" monoculture is just as digitally dangerous as the Irish dependence on the potato was in Victorian times because, with his corporate mates, Uncle Bill is pursuing global expansion with unconstrained ambition. Microsoft has grown from 24 per cent market share in 1987 to 64 per cent in 1998 and is likely to climb as it extends its reach towards becoming an all pervasive networking services behemoth. Uncle Bill has even published a vision of a world that is inter-connected with Microsoft centres from where each computer receives not only its operating software, but also a continuous stream of data, applications... and maybe even your music.

In a rare moment of lucidity, Sting once said we are not in control of the forces that could make us next week's has-beens. The question is, are we happy with who is?

MW

'Nowadays, arse kissing has replaced arse biting, and a generation of Caligula wannabes think they can create stars out of a random assortment dogs.'

Macworld reviews

Ground-breaking digital cameras

Camedia C-4040Zoom

Manufacturer: Olympus (0800 072 0070) www.olympus.co.uk
Pros: High-resolution output; noise reduction; excellent quality pictures; easy Mac connectivity.
Cons: Controversial choice of battery solution.
Minimum specs: USB.
Price: £799 (including VAT).
Star Rating: ★★★★/8.7

Camedia C-700 Ultra Zoom

Manufacturer: Olympus
Pros: 10x zoom; excellent quality pictures; easy Mac connectivity.
Cons: Controversial choice of battery solution.
Minimum specs: USB.
Price: £599 (including VAT).
Star Rating: ★★★★/8.8

When it comes to digital cameras, more megapixels and bigger zooms abound, but are they yet good enough to replace film cameras? Olympus has added a couple of new models to its range, with some groundbreaking technology.

The Camedia C-700 is billed as the world's smallest 10x zoom camera. This zoom level is impressive, as you can get good pictures from a distance without any digital-zoom trickery. Digital zoom is a bit of a con anyway – it just blows up the image in the same way as Photoshop.

All about image

The 4040 has only a 3x zoom, but it makes up for this by having a massive 4.1-megapixel CCD. This means that the picture resolution is 2,272-x-1,704 pixels – allowing for fantastic image quality at up to A4 size on an inkjet printer. You could even blow it up to A3 and still have acceptable quality. There's also

Smart design
The Camedia C-4040Zoom (below) comes with a remote control, so you can include yourself in group shots. The C-700 Ultra Zoom's (above, right) silver metallic design adds to its compact feel. The 4040 comes with a 16MB SmartMedia card, while the 700 has an 8MB card.

an enhanced-quality mode that outputs a 3,200-x-2,400-pixel file, but this is an interpolated format.

The controls on both cameras are similar, with simple access to the features. The C-700 has a pop-up flash, while the 4040 has a fixed flash. Both models can do the usual gimmicky things – such as record sound and MPEG movies – but they concentrate on being good at the basics.

Dark horse

The 4040 uses the Olympus Super Bright Zoom lens, which is a F1.8 lens. It also has a clever noise-reduction system that's good for low-light shots.

First, it takes the shot – for example, a city night-scene. This kind of shot shows up the noise from a CCD in the worst way. In the noise-reduction mode, a second shot is then taken with the shutter closed. The picture from the second shot should be all black, but again there will be a noise pattern. The camera looks at the second shot, maps the noise from the CCD, then corrects it on the original shot. The results are amazing – though it does take a little longer.

Both models use a USB cable to connect to a Mac. If you're running Mac OS 9.1 or OS X, no drivers are required. The cameras simply mount on the desktop, and let you drag pictures to the hard drive. In OS X, it works even more politely, automatically downloading files to a chosen folder, and even making them into an HTML page if needed. Pretty impressive.

Battery life is always an issue with digital photography. Freedom from film is great, but if you're constantly worrying about flat batteries, then so what?

Traditionally, rechargeable batteries have been the answer to this, but keeping track of battery power is a hassle. Some models can use regular AA

batteries – which are more convenient, but they don't last long and cost a fortune. A better way is to have a lithium rechargeable cell, ideally one that can be charged by plugging power directly into the camera. This method works well, but you still have to keep track of the charge in the battery. Like mobile phones, the displays only give a vague indication of charge.

Olympus has taken a completely different tack, using non-rechargeable lithium batteries.

This gives the best of both worlds, though there are still some drawbacks – £20-a-go for a start. However, the battery life is amazing, far better than I had expected. I first tried the C-700 back in mid-June. I took it on holiday for a week, then on my brother's stag weekend, then to his wedding – and the batteries lived on. I was taking pictures two months later before the batteries ran out.

I wouldn't mind paying for them, because it means I'm not constantly worrying about when they'll run out. And when they do, I have spares ready to go. Perhaps it just appeals to my rampant consumer sensibilities. However, a straw poll of the office showed I was in the minority here.

Macworld's buying advice

Both these cameras offer great quality and features, and either one would suit me. If I had to chose, however, I'd probably go for the 2.1-megapixel C-700. After having used both cameras for a while, I realised that you don't need 4.1 megapixels. Actually, I always reduce the resolution and put my pictures on the Web via Apple's free iTools. I print relatively few pictures.

If your intention is to print pictures at A4 size or bigger, the C-4040 is an excellent choice. It doesn't have the 10x zoom, but picture quality is impressive.
David Fanning

Business DTP application

PageMaker 7

Publisher: Adobe (020 8606 4001) www.adobe.co.uk
Pros: Price; versatility; ease of use.
Cons: Minor upgrade; no template browser; poor text handling.
Min specs: Mac OS 8.6 (with Apple Software Font Manager Update v1).
Price: £405; upgrade £58 (excluding VAT).
Star Rating: ★★★★/8.0

Data Maker
Business users may well be tempted by PageMaker 7's new DataMerge facility, which works like standard mail-merge systems, using merge fields and a data source – in this case, comma-delimited text files.

All-rounder it may be, but Adobe is now pitching PageMaker 7 firmly at the business market. This is to make way for the company's new flagship design program, InDesign. This means that PageMaker is no longer fighting head-to-head with QuarkXPress – once its greatest rival.

PageMaker now comes with a wide range of design templates and a decent clip-art collection. It's intended to be the ideal program for business users who want professional design-tools, but who aren't professional designers themselves.

PageMaker does this pretty well. It uses the standard Adobe-interface, with the majority of tools displayed on palettes that can be aligned with each other, and combined as tabbed palettes.

Block head

It's also a pretty simple program to grasp. The layout area is clean and gadget-free, and the layout concepts are pretty simple. PageMaker's still a little confusing in the way it handles text, though. You can flow text into documents automatically – where it's added as linked blocks created on-the-fly between your document's column guides – or you can create stand-alone text frames.

The frames can include more than one column, and you can link them together. They're a fairly recent addition to PageMaker, and they're designed to mimic the way QuarkXPress handles text. That's all very well, but the way they co-exist with the older blocks-based system is pretty confusing – especially since the two types of text container behave in different ways. You do have to be careful how you delete linked text blocks. And while you can flow text around a text frame, it can't be flowed round a block.

Otherwise, PageMaker is very good. You place graphics directly on the page instead of having to create a box first. This, and its easy text-wrapping options,

make it great for instinctive on-the-page design. Add to this PageMaker's long-document tools, which include automatic index and table of contents generation, and you've got a program that's as effective at long, structured documents as it is magazine layouts and brochures.

What's more, PageMaker can export straight to PDF format, and version 7 comes with Acrobat Distiller 5, offering more compact files and the ability to create tagged PDF documents. Tagged content – text and graphics – can now reflow depending on the size of the display the document's being read on.

Elsewhere, the business angle is reinforced by the introduction of DataMerge tools, which let you treat PageMaker publications as form letters for automated mail-outs. Your data source can be any comma-delimited text file – which can be created in any word processor, or exported from PageMaker itself. You insert the data fields using the new Data Merge palette. You can even merge images, though you'll need to specify pathnames for each one.

You can now place Photoshop and Illustrator files in layouts directly, without having to use intermediate file formats. Multi-layer Photoshop files no longer have to be flattened into a single layer first, and you can modify the original in Photoshop, which updates the versions placed in documents.

The Illustrator support is less impressive, though. PageMaker won't support any transparency effects used, so you may well have to resort to exporting artwork as an .eps file first. PageMaker lets you place PDF files directly, though.

This improved support for other file formats extends to an updated converter for QuarkXPress, plus the

ability to import files created in the latest versions of Word.

Macworld's buying advice

The lack of any real innovation in PageMaker 7 doesn't change the fact that it's still a very competent page-layout tool. Until Adobe decided to reposition it for the business market, it competed head-to-head with QuarkXPress, and pretty effectively too. Even now, it's much cheaper, just as effective for many types of work, and widely accepted at output bureaus. Its approach to design is much more intuitive and less cluttered than XPress's.

PageMaker 7 feels more like a maintenance release than an upgrade. The new DataMerge feature, enhanced PDF support and direct Illustrator/Photoshop compatibility may or may not tempt existing users, but for those who want a versatile, powerful and uncluttered DTP application, PageMaker 7 is a terrific first-time purchase – business user or otherwise.
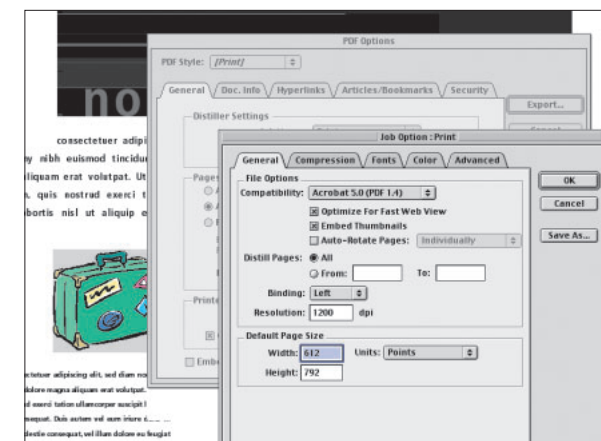**Rod Lawton**

Acrobat options
PageMaker 7 exports in Acrobat 5 format using Acrobat Distiller 5. You don't get the Acrobat 5 PDF editor, but the PDF-export options are comprehensive enough for most output jobs.

Stylus C40

Manufacturer: Epson   (0800 200 546)   www.epson.co.uk
Pros: Impressive quality for the price.
Cons: Slow.
Minimum specs: Mac OS 8.5.1; USB.
Price: £79 (including VAT).
Star Rating: ★★★★/7.3

Stylus Photo 895

Manufacturer: Epson   (0800 200 546)   www.epson.co.uk
Pros: Allows for computerless digital-photo printing; high-quality output.
Cons: Photo Viewer is £79 extra; some memory-card adaptors are extra; good value only for the computerless; noticeable paper-feed blemishes.
Minimum specs: Mac OS 8.5; USB.
Price: £199 (including VAT).
Star Rating: ★★★★/8.0

Suitcase 10

Publisher: Extensis   www.extensis.com
Distributor: Computers Unlimited
(020 8358 5857)
Pros: Font auto-activation in most applications; Collect for Output feature; new font problem-solving facilities; free Adobe Illustrator plug-in upgrade.
Cons: Confusing font-family display; possible incompatibility with Virex.
Min specs: Power Mac; Mac OS 8.6.
Price: £69; upgrade from version 9, £39 (both prices exclude VAT).
Star Rating: ★★★★/8.6

In context
Suitcase now uses Contextual Menus. While it's taken a while for this piece of Apple technology to catch on, anyone who uses the set of menus called up by holding down the Option key cannot fail to appreciate the time saved.

Bypass operation
The user interfaces with the Stylus Photo 895 (above) – when it's not connected to a Mac – via an LCD menu-panel that offers a range of basic options, including print format, number of pages, print quality (high or normal) and image selection. Single images can be printed at A4 size, or images can be printed as rows of thumbnails.

Don't expect the Stylus C40 (below) to turn your favourite snaps into A4 prints fit for the wall – unless you're a colour-management demon and can use Photoshop to optimize a printer's colour performance. This is primarily a text printer.

E pson's latest additions to its raft of consumer inkjets embody two reasons for its long-time domination of this market: it offers quality products at affordable prices, and it rarely ceases innovating.

Its new entry-level Stylus, the C40, is a no-frills affair. It prints at a maximum resolution of 1,400dpi, at which it can give photoish-quality output on glossy photo-paper. However, this model is £79, and as such offers only so much.

One thing that it won't buy is speed. Printing at 1,400dpi is painfully slow. A single page of black text took over four minutes to output, while a test image took a stubble-inducing 10 minutes. Why *are* low-end printers so sluggish? It's not as if the faster mid-range and high-end models boast processors to help them churn stuff out. Maybe manufacturers design them this way.

The C40's colour accuracy is merely average. Using the supplied C40 colour profile, it turned the stunning blue skies of the test image into a jaundiced wash.

The Stylus Photo 895 is as remarkable as the C40 is ordinary: it undermines Apple's vision of the Mac as a digital hub, making it possible to print digital-camera images without a computer. The 895 can do this thanks to a memory-card slot that accepts Flash ATA, CompactFlash, SmartMedia, and Memory Stick. The 895 comes with

a CompactFlash adaptor, so if you use the other standards, it means forking out extra for an adaptor. There's a £25 discount voucher in the box that's redeemable against Memory Stick and Smartmedia adoptors (both of which cost £49, including VAT).

Because digital cameras make it impossible to name images, working out which one is which from a range consisting of JPEG1, JPEG2, etc is an exercise in futility.

For this reason, Epson has released the Photo Viewer – a one-inch LCD monitor that displays images as you scroll through them on the menu panel. However, at £79 this doesn't come cheap. Epson should surely have bundled this with the printer and bumped up its box price by, say, £30.

However, the 895's print quality is excellent. The digital images I output were of a high photo-quality calibre – both colour accurate and crisp.

Snail's pace

But if the C40 is slow at high resolutions, then the 895 is even slower. With no computer to assist it, the 895 took just under 14 minutes to process an A4 image at its top resolution of 2,880dpi. When it was hooked-up to a Blue-&-White Power Mac G3, it output the test image at the same resolution in 4 minutes 43 seconds. Again, print quality was of a high order. I used the supplied 895 high-quality glossy-paper colour profile, and the same print settings as were selected for the C40. It did an impressive job on the subtle sunset hues and ocean blues. (This test image can be download from www.macworld.co.uk/testcentre). Something I especially liked with the 895 is that it gives full-bleed images on A4 and 100-x-150mm images. This nicely enhances the photo-finish effect. Epson also claims that its inks are light-fast for 20 years.

One thing that did concern me about the 895 is that its paper-feed mechanism leaves rows of pinhead pricks across the paper. These can be lessened by setting the paper-weight adjustment lever to the heavy-paper setting, but they remain clearly visible – and detract from otherwise photo-quality output.

Macworld's buying advice

The 895 is designed to give optimum results when used only with selected digital cameras. Epson's print-matching technology means these cameras use the same colour profiles as the 895. The profiles are Scenery, Sport, Landscape, Portrait and Macro.

At present, this list of cameras is limited to the following models: Sony DSC P30, DSC P50 and DSC S75; Epson PhotoPC 3100Z; Casio QV2900UX, QV3500EX and QV4000; Nikon Coolpix995; Minolta DiMage7; and the Kyocera Finecam S3.

The 895 is a great printer, but it's not cheap. To get the most from it, you need one of the above-mentioned cameras, the £79 Photo Viewer, endless packs of pricey glossy paper (£8.90 for a 20-leaf pack) and, of course, pricey ink cartridges. And then maybe there's the extra for the memory-card adaptor.

As such, the 895 is good value only for the computerless who'd like to output images. In this regard, it's a great innovation. If, however, you already have a computer and want to run text jobs as well, why not opt for one of Epson's cheaper photo-quality options?

The C40 is designed as a step-up from the Stylus Color 580, which costs £59 (inc VAT). It prints two more pages a minute, and has a smaller footprint. If this is important to you, then the C40 is worth the extra £20.
Sean Ashcroft

W hen you consider that Suitcase originally appeared 14 years ago – courtesy of Fifth Generation Systems – as a very basic System 6 font/desk accessory launcher, it's come a long way. In the hands of Extensis, a slew of features have been added, culminating in the latest incarnation: Suitcase 10.

A number of new features have been added to this full-point upgrade, a key one of which is auto-activation. A special XTension for QuarkXPress (included since Suitcase 8) opens all fonts within Suitcase's typeface database that are relevant to a particular document, and even ensures that fonts for placed EPS files are available for printing. These then stay open and are closed when QuarkXPress quits or can be made to close per document. Using Apple's FontSync technology (part of Mac OS 9 and later), which uniquely identifies all typefaces, Suitcase 10 opens all necessary fonts for a document within a number of applications, including FreeHand, Microsoft Office 98 and 2001, and CorelDraw 8.

While Adobe products are not included within the list, there should be a free plug-in available by the time you read this that offers the same facility for Illustrator. This cannot appear too soon; Suitcase's inability to open fonts used within an Illustrator document has made many users switch to the prime opposition, Adobe Type Manager Deluxe. While you can always create an Application Set for unsupported applications – which ensures that a base set of fonts open when that program is launched – it's not a very useful solution. There's no news of such a plug-in for InDesign or Photoshop.

Following on from this, fonts can be activated on demand. Holding down the ⌘ key while drag-&-dropping fonts to Suitcase 10 opens them on a
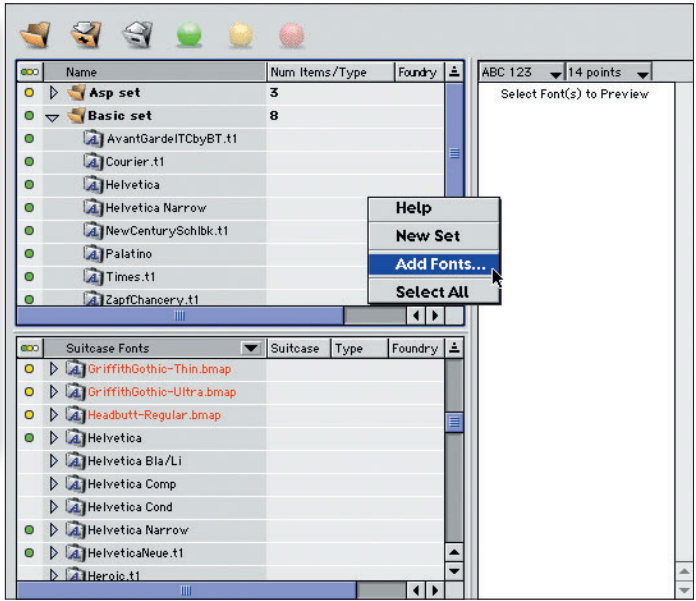
temporary basis but ensures they are closed restart. This is particularly useful for contract publishers and repro houses with a number of clients, because they need to ensure that only the client's fonts are active when handling their jobs.

One of the most important changes in Suitcase 9 was that of working with sets. Version 10 builds on this by providing a Control Strip module from which Suitcase can be opened (useful if the keyboard shortcut clashes with an application's command set) or any set within Suitcase.

Collector's item

Another new facility is that of Collect for Output. QuarkXPress uses such a feature to gather the current document and all graphics into a single folder; Suitcase uses the similarly-named feature to collect a set of fonts by selecting them in Suitcase's panel. It's a useful function, given the cost of a full-blown preflighter. And, while you have to make sure that all fonts are selected, Suitcase removes the headache from working out which printer fonts match up with the screen-font suitcases.

Suitcase offers two further new features, both aimed at making font-problems easier to handle. Any font-activation conflicts are shown by the font-suitcase name, as opposed to the typeface name, and corrupted fonts are tracked back to their suitcases, making it simpler to delete and replace them.

A nice addition to the package is Lemke Software's FontBook 3.3.2, which allows you to view and print many sample pages for all your fonts. It includes a number of predefined layout pages, and can help to construct a decent reference type-book.

Macworld's buying advice

Many of the gripes with the original release of Suitcase 9 have gone – indeed, most of them disappeared with the 9.01 maintenance version and have remained fixed. The memory usage is no longer bloated, and the likes of QuarkXPress and Illustrator recognize newly opened fonts without having to quit and restart.

Font management tends to fall into the hands of one of two products: Suitcase and ATM Deluxe. There's a core of basic facilities that both offer, including drag-&-drop and font problem warnings. To group fonts into families, Suitcase offers its MenuFonts Control Panel, while ATM Deluxe has Type Reunion.

A possible clash has been reported between MenuFonts and Virex 6.1, the result of which is a long delay when trying to change the printer description or page size in XPress 4.1.1's Print dialog. Disabling the Control Panel solves the problem, but it doesn't appear to affect everyone – so there may be other contributory factors.

If you already own Suitcase, it's definitely worth upgrading to version 10. ATM Deluxe owners will probably stick rather than twist – but they'll have to switch when they make the inevitable move to Mac OS X, as Adobe is not going to develop ATM for X. A Carbonized version of Suitcase 10 (free to registered users) is due in early November. If planning to switch to OS X soon, ATM Deluxe users would be wise to get used to Suitcase – to save themselves having to learn a new operating system *and* a new font-management system at the same time.
Vic Lennard

Double trouble
Suitcase 10 clearly shows PostScript and TrueType versions of fonts, but doesn't give the full font name. This makes it impossible to tell the difference between, say, Helvetica Black and Helvetica Neue Black (Adobe Type Reunion shows the latter with its full name, 95 Helvetica Black).

Now Up-to-Date and Contact 4.0

Publisher: Power On
www.poweronsoftware.com
Distributor: Computers Unlimited
(020 8358 5857)
Pros: Modern interface; Grab-N-Go feature; improved server performance; full version of 3.8.3 on this month's *Macworld* CD, so upgrade price is a bargain.
Cons: Still doesn't support Palm Memo.
Min specs: Mac OS 8.6
Price: £69; upgrade, £39. (both prices exclude VAT)
Star Rating: ★★★★/8.0

On the CD

Try Now Up-to-Date and Contact 3.8.3 for yourself – the full version is on this month's main CD.

O ther Macintosh PIMs have fallen in battle, but Now Up-to-Date and Contact has survived, after being rescued from near oblivion by Power On Software. The first major update since 1995 makes several compatibility changes, and brings the package in line with current Mac technology.

Both programs have received a face-lift, adopting a more Aqua look in their tool bars and windows. You can customize their colours and background patterns, but can't customize tool bars to suit your work style. And although the programs offer good integration with Palm handhelds, they still don't support Palm's Memo application.

The calendar views in Now Up-to Date include new mini-calendars that show one or more upcoming months; click on a date in a mini-calendar, and it appears in the main calendar. But the long-overdue mini-calendars still need improvement. It would be useful if they highlighted dates with activities and allowed users to view preceding, as well as upcoming, months.

Other missing features include event templates and, in the Year view, indicators of which days contain events. And you still can't conveniently group events and contacts into projects.

Now Contact 4.0 offers extra fields for Internet addresses and other custom information, as well as shared keywords. Data-filtering improvements include the new AlphaBar, a row of letter buttons above the contact list; clicking on a letter

filters the list down to contacts beginning with that letter. You can also narrow the contact list by typing a few letters into the new QuickFilter field.

Grab-N-Go, a fine new feature, lets you use contextual menus to create calendar entries from selected text. For example, if you select a person's name in an email message, open the contextual menu, and choose an event, Up-to-Date will create and open that event. Grab-N-Go doesn't work in all applications, but it supports Microsoft Office and Internet Explorer, and most email programs.

The 4.0 servers communicate faster with the clients and fix problems in the old servers. But, because older clients

can't connect to 4.0 servers, and 4.0 clients can't use the older servers, you have to upgrade all your users at once.

This version runs in Mac OS X's Classic mode, but the Carbonized version will be released soon as a free upgrade.

Macworld's buying advice

If you've installed the free, fully working version of Now Up-to-Date and Contact 3.8.3 that's on this month's cover-mounted CD, version 4.0 is certainly worth its upgrade cost – a bargain at £39. You might want to wait for the Carbonized version, and then upgrade your OS and PIM at the same time.
Tom Negrino

Feature light
Not the hardest-working calendar in showbusiness, Now Up-to-Date's new mini-calendar is helpful, but it needs to do more – for example, indicate which days have events.

BoxClever DVDR-RW

Manufacturer: Mac and More
(01442 870 300)
www.macandmore.co.uk
Pros: DVD production without buying a new Mac; 4.7GB of storage for under a tenner.
Cons: No DVD-Video playback; incompatible with iDVD.
Min specs: FireWire.
Price: £699 (excluding VAT)
Star Rating: ★★★/8.4

M ac & More is the first company to start shipping Pioneer-based DVD-R/RW drives. Over the past five years, the various formats of 5.25-inch optical discs have created a minefield of confusion – from CD to the various DVD-formats. Until recently, you had to choose between CD recording or DVD-Video, as the two were unavailable as a bundled solution. But in January, Apple announced that its top-of-the-range machine would ship with the SuperDrive, capable of both DVD-R and CD-RW recording. It was an instant hit, but the only drawback was that you had to spend £2,500 on a new Mac to get the benefits. Even now, you won't get a machine with a SuperDrive for under £1,799.

The Mac & More drive is connected by a FireWire interface. Although the mechanism is identical, it won't work in exactly the same way as the internal Apple drive. The biggest difference is the ability to use Apple's iDVD software. This is a tragedy, because it's this

software that makes DVD production something that kids can do. Apple doesn't sell iDVD, because it comes only with the machines that support it, and doesn't support external drives.

There are plenty of good reasons for wanting this device. For a start, professional DVD authors can use it, with Apple's professional DVD-production software, DVD Studio Pro (£680). This is aimed at the multimedia-production market, and is a capable but extremely complex product. It does, however, allow multiple camera-angles, subtitles and Dolby Digital sound encoding – none of which can be found in iDVD.

The DVD discs hold a massive 4.7GB of data, enough to back up all those important documents. To do this, you need a copy of Toast, which can burn DVD discs in the same way it burns CDs. However, if you want to pass the disc on, the recipient will need a DVD drive. If your audience doesn't have a DVD-ROM drive, then this drive can also burn CDs at 8x.

Macworld's buying advice

Despite falling short on compatibility with iDVD, and lacking DVD-Video playback, the Mac & More drive is still useful. It offers a variety of storage options in one box. Although Apple has stated that iDVD won't support the extended Pioneer drive, I hope it'll change its tune when there are more of these drives around. If you can't afford £1,799 for a whole new Mac with built-in DVD-R SuperDrive, this is a great option.
David Fanning

MIDI mixing and recording

Nuendo

Publisher: Steinberg   www.steinberg.de
Distributor: Arbiter (020 8202 1199)
Pros: Undo History; 32-bit floating-point operation; wide range of file formats, sample-rates and bit depths.
Cons: Fussier interface than Pro Tools; won't work on non-USB Macs; crashes a lot.
Min specs: G3; Mac OS 9; 128MB RAM; USB.
Price: £680 (excluding VAT).
Star Rating: ★★★★/7.8

As a serious alternative to Pro Tools for audio and MIDI recording – especially for former Cubase VST users – Steinberg's Nuendo deserves serious consideration. You can use any hardware for which ASIO drivers are available – including the Pro Tools MIX card, which I used to test the software.

With the software you get a Project window, which is equivalent to the Edit window in Pro Tools and, roughly, to the Arrange window in Cubase.

Ranged across the top of this are various tools, some of which will be familiar to Cubase users – such as the scissors and glue tools. Others are new for Nuendo, such as Trim Start Left and Snap To Zero Crossing.

The main Project window shows regions for the audio tracks and parts for the MIDI, with tracks running from left to right across the window. At this level you can cut, copy and paste audio and MIDI to form an arrangement, and can set track outputs, solos/mutes and so forth at the left of each track. This is laid-out more straightforwardly than in Cubase, and is similar to the layout of the Edit window in Pro Tools. However, Nuendo has a much noisier look-&-feel than Pro Tools – which is clearer and direct. However, Nuendo is a great improvement on Cubase VST in this respect.

Click on any audio region and up pops a fully featured waveform-editing window called the Sample Editor. Click on any MIDI part, and up comes a graphical MIDI Editor that lets you move notes around individually, with a section provided to graphically edit Velocity and MIDI-controller data.

The Browser window in the Project menu provides list editing for each track, with events handily filed away into folders for each track. I prefer the straightforward – albeit simpler and less comprehensive – approach to MIDI used in Nuendo to the more fiddly Cubase VST. Although there's no score editing,

Nuendo's MIDI features are adequate for most projects, while MIDI tweakheads will prefer Cubase VST – especially for music production.

For post-production, Nuendo definitely has the edge. Professional nine-pin machine-control facilities let you hook-up video recorders and synchronizers for work to picture. Nuendo also supports the OMFI file format, so you can exchange projects with Avid systems, or with Final Cut Pro. You can also transfer projects to and from Pro Tools.

Sound support

There's also support for the new OpenTL file-exchange format, which allows for the import of projects from the Tascam hard-disk recording systems, popular in video post-production.

Nuendo supports surround formats up to and including 7.1 SDDS, and includes support for multi-channel effects. You can record at 16-bit, 24-bit or 32-bit floating resolution, and Nuendo supports file resolutions for export all the way from 8-bit up to 32-bit floating point.

Floating-point representation provides much greater accuracy, and the 32-bit file support lets you preserve this accuracy until final mastering. Most applications, such as Pro Tools, stop at 24-bit files, and normally do not support 8-bit files. Supported sample-rates are even more comprehensive – all the way from 8KHz up to 384KHz – with the important sample-rates for CD and DVD included.

There are some pleasant surprises for MIDI users. You can import ReCycle REX files containing drum loops that speed up or slow down as the tempo is adjusted, and there's excellent support for ReWire – which lets you stream up to 64 audio channels from synthesizer

applications such as Propellerheads' Reason.

The audio-mixing features are virtually identical to those in Cubase VST, with separate windows for the Mixer, Send Effects, Master Effects and Outputs, and individual Channel Settings windows for each channel, to let you set up the sends and inserts and adjust EQ. Non-realtime effects can be applied to selected audio events or Clips, or to a selected range. You can add realtime effects in the Mixer or apply effects directly to any audio event or Clip.

Nuendo is packed with useful features missing from rival packages. For example, for each audio and MIDI Track, you can specify whether they should be time-based – where changing the playback tempo will not affect the time position of Events – or tempo-based. Tempo can either be fixed through the whole project, or follow the Tempo Track. In the Tempo Track Editor, you can draw curves that determine how the tempo will change over time. Nuendo also features multiple undo, with the possibility to selectively remove or modify applied audio-processing at any point.

Macworld's buying advice

The automation is not as sophisticated as on Pro Tools, and the seven VST windows provided in Nuendo make mixing much more fiddly than in Pro Tools' single Mix window. However, support for 32-bit floating-point operation, comprehensive support for file formats, bit-depths and sample rates, and neat features such as the Undo History are all compelling reasons to buy Nuendo. Excellent features for working to picture, with strong support for surround sound make Nuendo a very cost-effective choice for post-production.
Mike Collins

Premiere sound
Nuendo is good news for Adobe Premiere users. You can transfer audio files and associated edits from Adobe Premiere to Nuendo – simply render a "Generic EDL" from Premiere and import the resultant file. You can import QuickTime video, and this will be displayed as frames in a video track, and in a small video window.

Tracking changes
Virtually every Mixer and Effect parameter can be automated, and automation Events are recorded on the corresponding channel's Automation Track. These can be viewed and edited on Automation sub-tracks – one for each channel parameter.
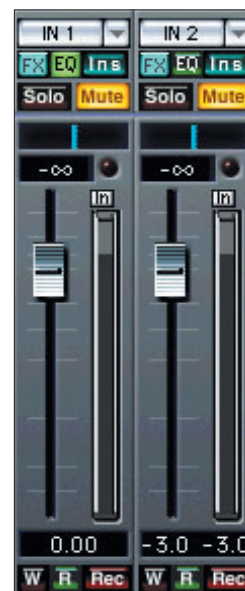
For months, numerous manufacturers have been telling me that 24-speed CD-RWs are imminent. However, it has taken until now for anybody to show me a working 24x CD-RW. The company is Formac, and the drive is called simply CDRW.

In times past, there was only one worthwhile way to burn a CD – Toast. This software from Roxio rules the CD-burning software roost. It was so superior to other CD-burning software that others didn't stand a chance – until recently.

Burning issue
The thing that upset the apple cart was Apple being "helpful", and adding CD burners and burning software to the latest Macs. This was a wonderful gesture, but while it made ripping off music CDs simple from iTunes, it broke Toast. It's nice to have CD-burning capabilities built-in to the operating system, but Toast is a far-superior product, and Apple's meddling has now made it difficult to use.

The 24x CD-RW ships with the OEM version of Toast Lite 5.0.1. If you want an easy life, under no circumstances install the Apple-burner software, because it won't co-exist with Toast. If you tread carefully, Toast will work right away,

but it's a minefield. A USB connection isn't up to the job of 24x burning; this requires FireWire. FireWire also makes it easy to connect compared with other high-speed peripheral connections, such as SCSI, which requires an address and termination.

Speed is the main reason for spending this much money on a CD burner. You can get cheaper burners, but you'll be able to fill a CD in half the time it takes with a 12-speed drive. This brings the actual burning speed down to a little over three minutes for a full 650MB CD. Of course, the burning time doesn't include finishing time or verification, but it's still pretty impressive.

Another thing worth remembering is that if you're using a CD-RW as a floppy file-sharing replacement, then most of the time the CD won't be full. For many of the discs burned, you'll spend more time unwrapping the CD than writing it.

If you're a fan of the way Apple is now supporting CD-RW drives within the operating software, you'll be disappointed with this model. Currently, it isn't supported by Apple's Disc Burner or iTunes recording-software. Future

updates may fix this – it really depends on how far Apple will take its bid for the CD-burning software market.

Macworld's buying advice
If buying a CD-RW for the first time, or replacing an older model, the 24x CD-RW will keep you ahead of the pack. Unfortunately, it's so far ahead of the pack that current software support is patchy, due to Apple's meddling. However, there's no faster way of recording CD-Rs, and I haven't heard of any faster ones in the pipeline, so it's a good time to buy.
David Fanning

The O'Dixion Octavo Digicopier is like LaCie's Dupli-125 five-CD duplicator (see *Macworld* Reviews, September 2001) on steroids. With eight 12x CD-RW drives and one reader, it looms on your desk – as a tall as Blue-&-White G3. As with the LaCie, this drive is operated using an LCD-based menu system and a series of buttons. It's easy to find what you want – and if you get lost, there's a helpful flowchart in the manual.

Setting the drive up to copy is simply a matter of selecting the relevant mode from the menu – from then on, you're walked through the process with prompts on the LCD display. Usefully, this display is on the top of the unit – so if it's on the floor, you won't need to crouch to read it. There's no backlight, though.

The Digicopier offers a few different options for making copies – and is made all the more versatile by the SCSI connection on the back. You're able to make a direct copy from CD to CD, or do this via the unit's internal 6GB hard-disk. Additionally, you can create a disc image from a CD and store it internally, then burn copies from it at a later date – more on this later. There are also options for copying audio CDs. As with the LaCie drive, you can perform bulk-wipes of CD-RW discs, and simulated burns.

I used a 564.5MB test CD for this review, and made a full eight copies. When I pressed the start button, the Digicopier launched into a series of checks on the target media and the source CD – including automatically deciding the best copying speed – which took a full two and a half minutes.

The entire burn took 20 minutes – over seven minutes longer than the LaCie. I didn't worry about this too much, though; archiving is rarely done to a minute's deadline. When the burn was done, all the drawers flew out. Again, I can't see why this is necessary – CD drawers aren't the sturdiest of things, and most towers such as this would be floor-mounted – leaving them open to your clumsy co-workers' size nines.

The Octavo has a few additional tricks up its sleeve: aside from automatic speed selection, it lets you create custom CDs from tracks stored in memory. If you have, for instance, three audio CDs stored in the buffer, you can mix and match tracks onto a new CD. There are also facilities to check the number of CDs burned, and to upgrade the unit's internal software via the Internet. Additionally, connecting the unit to a Mac will enable you to use three of the CD writers with Roxio Toast.

Macworld's buying advice
What the Octavo does, it does very well. The LCD display is helpful and easy to navigate, and many options are open to you. It may be a touch noisy and a little slow, but this shouldn't detract from what is otherwise an excellent product.
John Steward

Drive 10

Using a new operating system like Mac OS X is scary. Although I've been using it for months, and OS X is pretty stable, there aren't many disk utilities to get me out of trouble. Not that I've had any problems, but a safety net is always reassuring. Thankfully Micromat has introduced Drive 10, a disk utility designed for OS X.

Drive 10's interface is the prettiest since Norton Utilities got the animated Dr Norton playing DJ with your disks.

Using the application couldn't be more straightforward. Simply select your drive and hit start. You can control which tests Drive 10 runs, but you may as well leave it with the default – which turns on all the available options.

As Drive 10 goes through its testing routines, it shows visual representations of the tests. As each test is completed, the icons slide to the left, and the next one is magnified as it goes about its business.

Drive 10 found no problems – better than Norton's paranoid proclamations of doom. Unfortunately though, without any problems for it to fix, it's difficult to evaluate Drive 10's effectiveness. However, Micromat has a history of making disk utilities, so it's safe to assume it will fix most problems.

Drive time
Drive 10 has one of the prettiest Aqua interfaces around, but its ability to save damaged Mac OS X machines is what really sets it apart.

Even when a drive won't boot at all, Drive 10 can help. You can boot from the CD into a cut-down OS X. This allows for more serious repairs to your drive, without using the installed system – making recovery more likely.

Micromat is best known for its TechTool Pro, which has been a rugged alternative to Norton Utilities for some time – and is updated quicker. If this is anything to go by, Drive 10 will be a winner.

Macworld's buying advice
You may never need Drive 10, but if you do, it won't be for a minor problem. Most people will buy Drive 10 after they have crashed. Of course, the smart thing is to buy it before this ever happens. **David Fanning**

Test Strip 3.1

Adobe Photoshop's Variations feature offers a visual way to correct colour, but it's limited, and more-complete tools such as Curves and Levels can be intimidating. Vivid Details' Test Strip 3.1, a Photoshop plug-in, takes a friendlier approach to colour correction. It can't solve all colour woes on its own – for the most-accurate results, you must also calibrate your equipment – but it goes a long way.

Test Strip divides an image into predefined sections that preview the results of adding or subtracting colours, contrast, density, and saturation. The new Gels feature lets you create independent, resizable strips. It's easy to create a Gel, assign six per cent cyan to it (for example), and then drag it over the image to preview the effect.

All change
Even novices can improve images with the new Metamorphosis tool. It works like an eye exam: you see two side-by-side slices of your image and click on the slice that most appeals. Choose the best of several more pairs, and Test Strip alters the original image's dynamic range, brightness, colour, and saturation. Metamorphosis combines that series of changes into just a few corrections. It doesn't work well with all images – particularly dark photos
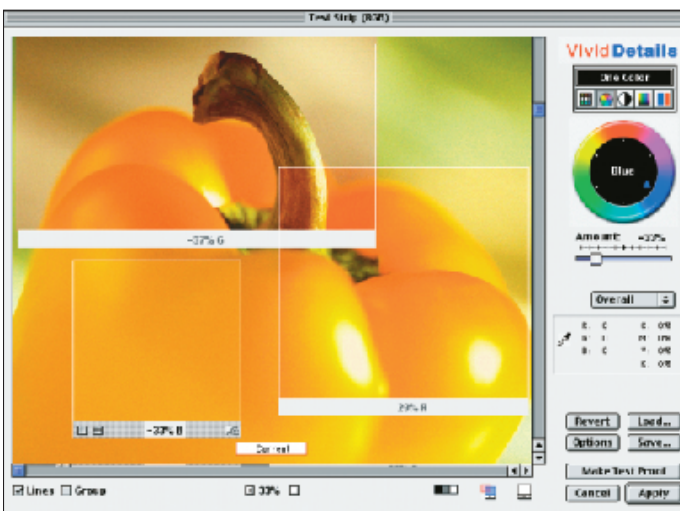
Gelling
Test Strip's Gels feature lets you preview changes to your image in one per cent increments.

– but it's a good starting point.

Text labels would make Test Strip even easier to use – the functions of many components aren't clear. Deciphering the program's mysterious icons required many trips to the manual.

Although version 3.1 is designed to run in Mac OS 7.6, 8, or 9, you can also run it in OS X's Classic mode. I tested it in OS X 10.0.4 on a G4/450, and windows didn't always fully redraw. And unless the Dock was hidden, it obscured key Test Strip buttons. Vivid Details says it will release a native OS X version when Adobe ships a Carbonized Photoshop.

Macworld's buying advice
Pre-press operators and other pro image-editors should still do their colour correction in Photoshop. But for the rest of us, Test Strip 3.1 is well worth buying. **Terri Stone**

BASIC programming software

FutureBASIC^3 Release 5

Publisher: Staz Software, www.stazsoftware.com
Distributor: Pix&Mix, www.euro.futurebasic.com
Pros: Rich documentation; abundant examples; fast; powerful.
Cons: It builds applications that are not yet fully compatible with Mac OS X; available only for Mac OS.
Price: Annual subscription fee of euro 202; euro 140 for renewals.
Min specs: System 7.6.1
Star Rating: ★★★★/8.3

Basic training
Note the indentation with the coloured lines, comment alignment, and colouring of keywords in the Integrated Development Environment (IDE) – the Editor and the Project Manager.

A year after the first public release, FutureBASIC^3 (FB) from Staz Software has arrived at version 5. FB is a suite of programs for developing Macintosh applications, combining the power and versatility of modern programming languages with the simplicity of BASIC.

FB allows the user to choose the most appropriate programming technique. Beginners can write programs using a simplified runtime, Console, without having to worry about things like the graphical user interface (GUI) or printing. Power users can choose between the Standard runtime, the Mac Toolbox runtime – which allows the development of tiny applications without any of the more complex built-in functions – or the Object runtime.

Code read

In the latest release, two new runtimes are available. The Appearance runtime implements all the new GUI features. The Game Engine runtime is a powerful OpenGL framework to develop 3D applications – principally, games.

Additionally, expert users can change part of the code that carries out the BASIC statements, in order to adapt them to a particular need, or to handle new features of the operating system. Those who have already used BASIC will be happy to know that – compared to visual environments – it's very simple to convert BASIC programs to FutureBASIC.

While it's not yet possible to build shared libraries, expert users will find plenty of opportunities to enhance applications. There is the possibility of including 680x0 or PowerPC assembly statements directly in the source code, or to call upon shared libraries.

FB enables the beginner to write his or her first application in a short time; the syntax is much simpler than C or Java, while remaining fast and powerful.

The BASIC statements in the Standard Runtime allow the novice to build, with just a few lines of code, functions that are usually much more difficult to implement in C (such as the handling of the GUI and the file I/O) without noticeable loss of speed in the final application.

It's possible to develop every kind of application for the Mac. Access to the Toolbox is, at last, complete: thousands of procedures and functions are directly available in the language. The learning curve for the Mac Toolbox isn't too steep, since the programmer can mix FutureBASIC keywords with Toolbox calls.

The only disappointment is the lack of support for Mac OS X, which, for now, is only assured from X's Classic. Staz is currently working on a Carbon runtime.

The Editor is a powerful tool that displays the different elements of the source code with the possibility for full personalization of the presentation. The Project Manager – from which can be accessed the different files present in a project, and any particular function inside those files – also adds to the ease of use.

The Editor is a pleasure to use. Keywords and the names of Toolbox calls are automatically highlighted when typing. The source code is immediately aligned with colour lines associated to structures – such as IF and ENDIF – and it's even possible to insert pictures and bookmarks in the source code. In addition, the Editor supports external tools through its plug-in architecture.

The Compiler is the gem at the heart of the program – it's fast, efficient and robust. With regard to speed and compactness, the generated apps are comparable with the most esteemed (and more expensive) compilers for C and C++.
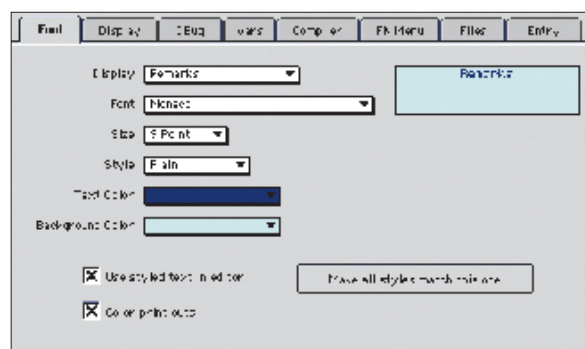
The tools available to support the programmer are extremely useful: the Debugger provides several handy features for tracking program flow and the values of variables at runtime; whereas the Profiler and the Frequency Analyzer are optimizing tools that measure the performance of programs.

Beginners, after having learned to write the first simple BASIC programs, can develop their first complete Macintosh application using the Program Generator – a GUI builder. Program Generator produces a full-featured functional shell using the Standard runtime, from which you can start serious projects in no time.

The rich electronic documentation shows the features of the different parts of the development environment and the syntax of the BASIC statements. It also introduces beginners to programming secrets, and provides technical info – such as Libraries and Toolbox calls.

Macworld's buying advice

Although one of the first programming tools available on the Macintosh, FutureBASIC^3 continues to grow.
Michele Neri

Get personal
The Preferences Window shows the various kinds of textual elements that can be displayed in a personalized way.

Input device

MS Office Keyboard

Manufacturer: Microsoft (0870 601 0100) www.microsoft.com/uk/hardware
Pros: Speed and convenience for Office users.
Cons: No USB port; no OS X drivers; Windows key instead of an (Apple) ⌘ key.
Price: £59 (including VAT).
Min specs: USB.
Star Rating: ★★★★/8.1

As Microsoft dominates so much of the software market, it's easy to forget that it makes hardware too. Of course, it never ventured into making computers, but Microsoft mice are among the best around. This is the first time Microsoft has made a Mac-compatible keyboard, and, if you're a fan of Office, this is a real treat.

The Microsoft Office Keyboard is designed to help you work more efficiently, by cutting down the number of keystrokes needed when using the business-software suite.

While the keyboard itself isn't as pretty as the Apple Pro Keyboard, it's very functional. The same is true of the

mice: for example, Apple's Pro Mouse is pretty; the MS Wheel Mouse is more functional. It's bigger than the average keyboard, but then it has a lot more buttons to fit in. It has a two-tone colour scheme: grey and a lighter shade of grey.

The most exciting bit is the single touch-pad. There are six keys plus a scrolling wheel. One switches the applications back and forth; three more Cut, Copy and Paste; and another two let you flick forwards and backwards in a Web browser. Best of all is the wheel that lets you scroll up and down pages.

It doesn't stop there, though. There is a row of function keys that are automatically assigned with useful functions related to Office. For example, if you're in Entourage you can use the Reply, Forward and Send buttons. From Word you can launch the Spell Check, Save and Print from function keys. There are even Undo and Redo keys.

There's an additional row of buttons above the usual function keys. Most of these are launch keys for the different Office applications, but there are also keys for Volume, Quit and Sleep.

However, the Office Keyboard isn't without its drawbacks. Users might find the lack of an ⌘ (aka, Apple or Command

key) key a bit alarming, especially as there is a Windows key instead. More confusing still is the fact that the Windows key is between the Control and Alt keys. The software does let you swap the key functions, but you can't swap the keys themselves. It might be a minor thing, but it's bound to confuse anybody else using your computer.

Another issue is the fact that the keyboard doesn't have a USB port on it, so the mouse must be plugged into a second USB port, or a hub.

The final and most upsetting flaw is the lack of Mac OS X support. Much as I love this keyboard, I'm not going back to OS 9 for it. And Microsoft says that it won't be X-compliant until spring 2002! That's a shame after all the effort Microsoft put into getting Office 10 out for this autumn.

Macworld's buying advice
If you use Office as much as me, this keyboard can save a couple of seconds a hundred times per day. It makes Office much snappier and easier to use. I whole-heartedly recommend it to any Office user – as soon as Mac OS X drivers are released.
David Fanning

OS X mail server

CommuniGate Pro 3.4

Publisher: Stalker Software www.stalker.com
Distributor: Charton Software (01905 790 610)
Pros: Secure Web-based admin and email access.
Cons: Expensive for small networks.
Price: from £349 for 50 users, to £3,499 for 30,000 (ex. VAT).
Min specs: Mac OS X.
Star Rating: ★★★★/8.4

The Internet's killer apps have always been email programs, but users' demands for more features, better security, and speed are tough to meet for Mac administrators using traditional mail-server packages. Mac OS X opens up the Macintosh to powerful mail servers previously available only on other platforms.

One of those mail servers is Stalker's CommuniGate Pro 3.4, a power app with advanced features such as encrypted-mail transfer, Web-based administration and email access, list management, and spam and virus protection. With its rich feature set and scalability, CommuniGate Pro turns the Macintosh into a world-class mail-serving platform.

Don't confuse it with CommuniGate, Stalker's older, Mac-only program; CommuniGate Pro is a different product that until recently ran only in Windows and Unix. Version 3.4 is the first commercial release to run on the Mac in any capacity, and it runs only in OS X.

Secure services
Installation is a snap, and the package is easy to administer via any Web browser. Unlike other Web-administered programs, however, CommuniGate Pro supports Secure Sockets Layer (SSL) encryption out of the box; you don't need to get a certificate – meaning you can administer CommuniGate Pro from anywhere.

CommuniGate Pro's line-up of services is extensive. The program supports most mail protocols – including SMTP, POP3, and IMAP4 – as well as the latest SSL encryption and Simple Authentication and Security Layer (SASL) authentication extensions. It can serve any number of domains, and it gives users their own Web sites. An extensive rule-processing engine allows you to set up mail pre-processing to filter and prioritize mail. Built-in spam

Code words
Because Stalker uses a single code-base for all platforms, the Mac version of CommuniGate Pro 7.4 offers the same capabilities as Windows and Unix versions.

protection prevents hackers from abusing your mail server, and lets you use DNS-based spam-blocking services. With its support for content-filtering plug-ins, you can use third-party virus scanners on incoming mail.

One of CommuniGate Pro's most impressive features is its scalability: you can support a few thousand users on a small Macintosh (such as an iMac) running Mac OS X, tens of thousands on a large OS X server, or millions on a multiserver cluster.

Even the smallest CommuniGate Pro configuration includes access to the entire suite of standard features.

CommuniGate Pro uses SSL encryption to protect mail from interception. SSL encrypts POP3, IMAP4, and Web-user sessions, as well as SMTP sessions between CommuniGate and distant mail servers. This latter protection requires the cooperation of off-site mail-server administrators, so it's most useful for setting up enterprise-email exchange.

Macworld's buying advice
CommuniGate Pro 3.4 is a sophisticated mail server with loads of features, but it's easy to set up and maintain. Its many security options help you keep email private, and extensive spam protection lets you minimize the amount of email noise your users must endure.
Mel Beckman

Royalty-free photo collection

Photo-Objects 50,000 volume II

Publisher: Hemera www.hemera.com
Distributor: Koch (01256 707 767)
Pros: Giant collection of cut-outs ready for use; inexpensive; PhotoFont application.
Cons: Some photos have weird effects; relatively small image size.
Min specs: PowerPC; 32MB RAM; Mac OS 8.6; 115MB hard-disk space.
Price: £69.99 (including VAT).
Star Rating: ★★★★/7.5

Clip-art has a pretty bad name; mainly because it ain't that pretty. Curiously-drawn people – looking like freakish clowns – doing sometimes impossible things (fishing with giant penguins, enjoying a barbecue on the moon, etc) populate collections that can span up to 50 CDs. Anything useful would have fitted on a floppy. Royalty-free photography, on the other hand, is much respected – as it is often of high quality, and is remarkable value compared to images available from esteemed companies such as PhotoDisc and Getty Images.

Volume II of Hemera's Photo-Objects 50,000 features that many photos (no lousy drawings) for just £69 – that's 0.14p per picture. Obviously, you're highly unlikely to use all 50,000 – or anywhere near – but designers who need a ready supply of people, or object,

images will find Photo-Objects saves them money and time when in desperate need of an appropriate image – be it a baby bunny or a pair of artificial arms (see right).

The tens of thousands of people and object cut-outs are good, but there's also a fair proportion of animal and place photos that are restricted in terms of usage by having a fairly brutal silkscreen effect of scratchy edges and, well, scratchy everything (see middle picture, right). Either Hemera bought up an image library of silkscreen-esque photos, or someone in charge believes that there's a ready market for pictures that look like jumble-sale postcards.

The other criticism of this collection is image size. At 300dpi, the maximum width or height of some images is about 6cm, which could be too small for many designers. 25,000 larger photos would have pleased more professional customers – especially if that meant a lot less niche scratchy postcards.

Alongside the 50,000 photos is PhotoFont, an application that places one of the pictures inside the text of your choosing. Simply type a word or phrase, select one of the images as a "texture", save in the format you require (print, Web, etc), and Bob's your uncle. Bob can even choose his own TIFF photos to fill his text with.

PhotoFont supports transparencies, so that the filled words will sit on a background, with no need to export to a program such as Adobe Photoshop. In practice, however, a letter's bowl –

Text message
Photo-Objects' PhotoFont lets you fill text with any of the 50,000 photographs, or even one of your own.

the enclosed space within an 'O', 'e' or 'd' for instance – seems to miss the cut, and remains the selected background colour. If Hemera could sort this out, PhotoFont would be superb – especially for novices who want everything done for them. Without the transparency glitch, PhotoFont works a treat, however.

Macworld's buying advice
Photo-Objects has its idiosyncrasies, but, at £69, offers good value for money to art studios that require a near endless supply of people and object cut-outs, or for amateur designers who'd like to add photos to newsletters and such like. And the bundled PhotoFont is fun, too.
Simon Jary

Computer furniture

i-max Workstation

Manufacturer: Integrated Furniture Solutions (0800 064 0525) www.ifsolutions.co.uk
Pros: Easy to assemble; attractive.
Cons: Needs better cable handling.
Price: £275 (excluding VAT).
Star Rating: ★★★★★/9.1

Although I review a lot of hardware, the i-max Workstation is the first furniture I've rated. Despite it's name, the desk is suitable for both iMacs and tower Macs.

As a kid I grew up visiting my dad at work in the Royal College of Art's Furniture Design Department. Back in the 1970s, the projects included everything you could wish for. There were black-lacquer cabinets that would, at the touch of a button, transform Tracey Island-like into a cocktail cabinet. There were strangely shaped plastic chairs and

tables that were straight out of the *Clockwork Orange* bar scene. But nowhere was there a computer desk, because the idea of a computer that fitted on a desk was ridiculous.

The i-max is both functional and good-looking. The flat-packed desk is sturdy – back-breakingly sturdy, in fact. It weighs a ton.

The package contains a scary number of pieces, but they are neatly packed. The instructions are easy to follow, and include all the tools and bolts needed. After about three hours, including a couple of beers in front of the telly, it was finished. Proficient DIYers would have had it done in 30 minutes.

The finished desk is something to behold: metallic, but not sharp. It's tall, but because of its thoughtful design, it saves acres of space. Previously, I was using a simple desk with a sliding keyboard-drawer, plus a small coffee-table for a printer and another coffee table for a scanner. Frankly, it was a mess. Now it's all neatly arranged – vertically.

However, it could do with a few improvements. Power cables can be hidden slightly, but I have half a dozen USB devices that leave trailing cables. Also, a slide-under drawer for things such as rulers, clips, and printer paper would be useful.

The i-max is a fantastic piece of furniture. It can easily handle my Power Mac G4, with all its peripherals. It could be overkill for a solitary iMac, though. The monitor shelf is big enough for most monitors, though 22-inchers and Cinema Displays will easily fill all the available space.

Macworld's buying advice
It may look out of place in less high-tech households, and its size may scare children, but I love the i-max. It's a great use of space, though it lacks handy paper and book storage.
David Fanning

Psycho in Wonderland

American McGee's Alice

Publisher: Aspyr www.aspyr.com
Distributor: Softline
(01883 745 111)
www.softline.co.uk
Pros: Detailed and imaginative environment; terrific storyline; great game-play.
Cons: Hardware acceleration is required.
Min specs: Mac OS 8.6; Mac OS X compatible; 400MHz PowerPC; 128 MB RAM; hardware 3D Acceleration required (ATI Rage 128 or later).
Price: £39 (including VAT)
Star Rating: ★★★★★/9.2

The first thing you need to know about Alice, is that she's not the Alice from Wonderland you used to know. Since her adventures in Wonderland, and her trip through the looking glass, things haven't been going too well. A house fire that killed her parents has left Alice scarred – to say the least.

The story begins with a teenage Alice lying in a hospital bed – mute, and with staring eyes. The doctors decide that a childhood toy might bring her around, and they leave her with an old furry friend – a little white rabbit.

Alice is then plunged back into the fantasy world that she knew as a child, only this time both she and Wonderland have become sinister and morbid. Armed with a large kitchen-knife, Alice goes in search of the white rabbit.

I didn't expect much from Alice. It's based on the Quake engine, and I expected it to be a slightly different slant on the shoot'em-up genre. I was wrong. This is the most original game I've played in a long time. It's visually rich and full of detail – yet the main selling point is the story.

It's a really creepy and spine-tingling game. It brought back childhood memories of the child catcher in *Chitty Chitty Bang Bang*, and that scene in *Pinocchio* when the bad kids make him smoke cigars and he turns into a donkey. Don't let young children play this game; it will give them nightmares.

If you're brave enough to persist, and enjoy feeling slightly uncomfortable, what should you expect? Well, in the persona of Alice, you're a dangerous psychotic, but you also have puzzles to solve. Alice is a bit like an insane Lara Croft, though how sane you can be when you shoot endangered species and rob tombs is debatable.

Also not for kids is the game's plentiful drug references. I'm sure the developers would deny it, but the game is littered with them. The original Alice was presented with magic mushrooms and hookah-smoking caterpillars, but in this story there is skunk weed, LSD and who knows what else. I'm just waiting for Alice to chase the white rabbit into a crack house.

Game-play is full of surprises, both from the impressively bizarre landscape, and the twisted baddies that harass Alice. Luckily, she gets plenty of weapons, or toys as they are called, to play with. Apart from the bloody kitchen-knife, there is a croquet mallet that fires flaming croquet balls, demon dice and other ghoulish gadgets.

Guidance is available all the way through the game from the Cheshire cat. I don't know who does the voice over, but it reminds me of *The Rocky Horror Show's* Tim Curry – full of camp creepiness. The Cheshire cat has changed a little, he has shed a few pounds in the modern Wonderland, and his ear is pierced. Throughout the game, he will pop up to guide and nudge Alice on.

The mastermind behind this game is American McGee. American – yes that is his real name – was one of the driving forces behind the design of games such as Quake and Doom. Now, he's one of the only game designers to have had a game named after him, such is the respect American McGee commands in the gaming industry. After seeing Alice, I would say this respect is richly deserved. If I see a game with American McGee's name on again, I'll buy it.

Macworld's buying advice

If you have nerves of steel and enjoy a good story, puzzle, shoot'em-up and general horror-show, you won't find a finer example than this. American McGee's Alice is the most original and exciting game I've played in years. So turn off the lights and scare yourself silly with an evening of nightmares in Alice's twisted mind.
David Fanning

Party-time for The Sims

The Sims – House Party

Publisher: Aspyr www.aspyr.com
Distributor: Softline
(01883 745 111)
Pros: Adds extra levels of game play; obsessive and entertaining.
Cons: As your Sims lives get more complex, your's shrinks.
Min specs: Full version of The Sims; G3.
Price: £25 (including VAT)
Star Rating: ★★★/7.1

The Sims – House Party is an expansion set for the hugely popular The Sims. It offers a whole new set of goals for gamers, with the ultimate objective of hosting the biggest, best, most exciting block party ever seen. The best parties are rumoured to attract celebrities, who drive up in stretch limousines.

Extensive road testing failed to yield a celebrity; but found a mime artist. The mime's stated mission is to liven up the party, which it does by scaring guests, blocking the toilet and stealing food. Even a huge DJ rig, massive dance floor, and a speaker stack and lighting rig inspired by Spinal Tap couldn't prevent the appearance of that silent party assassin. The mime is the simulated equivalent of a teenage gatecrasher.

The Sims universe has nothing but trouble with staff – the cake dancer's flirtatious behaviour caused interpersonal warfare, the caterer refused to work after midnight, and every party ends with a visit from local law enforcement. It's hell, but there's always the chance that the next party could be the one.

No Noel
The Sims — House Party is a chance for the virtual It girls to hob nob with the stars – if they ever turn up, that is.

But, despite the shindig, those Sims must still make it to work on time.

The Sims – House Party offers a host of new objects, clothes and personalities for your little people. One handy new feature is the use of the telephone – you can talk to friends over the phone rather than invite them round, and this can strengthen relationships.

Macworld's buying advice

The Sims House Party expansion kit is even better if used with the Livin' Large expansion kit. It offers new choices and opportunities, and if you have time to kill, The Sims is the surrogate life of choice for armchair bon viveurs everywhere.
Jonny Evans

Hawk's and Orcs games

Tony Hawk's Pro Skater 2

Publisher: Aspyr Media www.aspyr.com
Distributor: Softline (01883 745 111)
Pros: Multiplayer support and customization give the game longevity; Mac OS X support included.
Cons: Soundtrack gets irritating fairly quickly; no OS X game-controller support.
Min specs: PowerPC G3; 32MB of RAM; Mac OS 8.6 or later (including OS X); hardware-based 3D acceleration using an ATI Rage Pro or faster graphics processor.
Price: £39.99 (including VAT)
Star Rating: ★★★★/8.6

Summoner

Publisher: GraphSim www.graphsim.com
Distributor: Softline (01883 745 111)
Pros: Macs and PCs play together; unique blend of 3D action and role-playing puzzles.
Cons: Control system occasionally too complex; graphical "popping" and texturing problems.
Min specs: PowerPC G3; 64MB of RAM; Mac OS 8.6 or later; hardware-based 3D acceleration using an ATI Rage Pro or faster graphics processor.
Price: £45 (including VAT)
Star Rating: ★★★★/7.1

T he idea of stepping onto a skateboard after all these years sets mental klaxons blaring – warning me that I'd permanently damage some part of my body. Fortunately, people like me can experience some of the thrills and spills of pro skateboarding vicariously, through Tony Hawk's Pro Skater 2, the popular extreme-sports game. There's nothing like it for the Mac – it's a 3D action game that puts you in control of a skateboarder who must navigate treacherous ramps, rails, and other obstacles.

Hangar time

You can use a keyboard or a game pad to skate through environments ranging from a school-yard, to a shopping mall, to an aircraft hangar. Grind rails and get major air-time as you hop over obstacles. As you improve your skills, you can string together combination moves to grab huge points. I've seen experts use combos to rack up hundreds of thousands of points in just a few seconds. If you perform specific feats of daring, you'll be rewarded with money. You can also find cash lying around if you know where to look. The more money you earn, the more parks you can visit, the more equipment you can buy, and the more tricks you can learn.

The game features a soundtrack of punk-pop and ska tunes from recognizable bands, which loops from track to track as you play. I got tired of it and opted for my own soundtrack.

Thanks to the game's multiplayer mode and its support for GameRanger – a free Mac-only multiplayer service – I've discovered that I'm every bit as clumsy and unco-ordinated on a virtual skateboard as I would be on a real one. I've had my hindquarters handed to me in each of the various multiplayer modes, including trick attack, graffiti, and horse.

The game is also chock-full of customization features. Although it boasts a pre-existing cast of some of pro skating's top stars, you can customize your own skater's height, build, basic physical features, and capabilities. And it comes with a built-in skate-park editor that enables you to come up with park designs as wild or mild as desired.

And yes, this game supports OS X (a Carbonized version is on the game's CD). However, some features, such as game-controller support, were missing in that version as *Macworld* went to press.

What makes Pro Skater 2 unique is that it's not your average sports game – it's an extreme-sports game. It's a challenging one at that, with immeasurable replay value thanks to its multiplayer gaming, customizable skaters, and skate-park editor.

D&D drama

Summoner is unique and deep. What makes it special, is that it doesn't attempt to duplicate the pen-and-paper role-playing game (RPG) experience of Dungeons & Dragons. Instead, it melds a solid rules-based system with console-game-like 3D action.

Summoner is a fantasy game set in a medieval land. You play the role of Joseph, a young man endowed with mystical powers that enable him to summon creatures, demons, and other nightmarish monsters. While eluding an evil emperor's henchmen, Joseph must find five hidden rings that will help him control and master his abilities. You also control other folks with special abilities and attributes whom Joseph befriends along the way.

Summoner is beautiful to watch – like Pro Skater 2, it's a 3D game that uses OpenGL and makes fairly high demands on system resources. Its roots as a console game are occasionally revealed in the form of some blocky texture maps, scenery that suddenly pops up out of the fog, and other graphical curiosities, but these problems aren't serious enough to detract from the game.

Summoner isn't an action game – at least not in the conventional sense. You're responsible for controlling characters individually or as a group, manipulating inventory, solving quests, engaging in combat with opponents, and interacting with non-player characters.

I hope I'm not being dumber than a box of hammers, but I found combat awkward and difficult to master. Although your party is composed of several characters, you can control only one at a time, which can make melee combat with several other opponents overly complicated. Neither is access to inventory, spells, attributes, and some elements of combat intuitive enough. Also, the game sometimes changes camera angles at inopportune moments, interfering with combat or other activities that require split-second timing.

You can play online, and, impressively, the game allows Mac and PC users to play together – something of a rarity in Mac game conversions. Summoner makes use of the online gaming company THQ's free multiplayer service, aptly called thqmultiplay.net.

Summoner won't be a good fit for everyone – it has too much action for some RPG fans, and requires too much individual character manipulation for some action fans. It ran solidly on my Power Mac G3/450 with 256MB of RAM.
Peter Cohen

(Top) **Skate or die**
You can perform radical manoeuvres – without risking your neck – in Tony Hawk's challenging Pro Skater 2.

(Bottom) **En garde**
Summoner's Joseph takes on a dastardly villain.

Rev-up your iMac

How to bump-up your iMac's speed and capacity.
By Jennifer Berger, Christopher Breen, and Jason Cox

You may have been an early adopter, the first in your sewing circle to own a tray-loading Bondi blue iMac or fruit-flavoured wonder – or perhaps you held off until the arrival of the slot-loading fruit flavours or earth-toned Ruby and Sage models. Whichever – your computer may now seem a little rickety: your applications are begging for more RAM, and your hard drive is just about full to the brim.

Buying a new machine isn't your only option. An iMac may look hermetically sealed – and its insides truly are harder to access than a Power Mac's – but with some time, some patience, and a modest amount of money, you can turn your iMac into a far more capable computer.
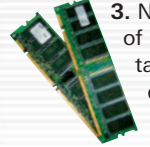
Though you can't easily (or cheaply) upgrade an iMac's processor from G3 to G4, there are at least two other ways to improve your iMac: increasing the amount of RAM, and replacing the hard drive with a roomier one. If you have a Rev. A iMac (the first to be released) you can also supplement your computer's video RAM. We'll show you how to accomplish all three tasks. The first set of steps (from 1 to 6) applies to the tray-loading Bondi Blue and fruit-flavoured iMacs; the second set of six steps concerns slot-loading fruit-flavoured models – which is every iMac since. If you're up for an even greater challenge, consider Sonnet Technologies' Harmoni Card, (£249 excluding VAT; Computers Unlimited, 020 8358 5857) that combines a processor upgrade with a FireWire port. Check with the company to determine compatibility.

You may void your warranty when performing these tasks, and with any hardware upgrade, some risk is involved. There isn't much danger that you'll actually damage your machine while performing these how-to steps, but more than one person on *Macworld*'s staff has had trouble upgrading an iMac. The warnings and tips provided here come from hard-won experience.

What you'll need

Here's a run-down of the supplies necessary to upgrade an iMac.

1. A 5,400rpm ATA or Ultra ATA hard drive (faster drives may be too hot for iMacs).

2. Mac OS installation CD, for help in backing up the old hard drive and reinstalling the OS when you're finished upgrading.

3. New RAM. The first slot-loading iMacs can take up to 512MB of RAM; iMacs released in the summer of 2000 and later can take 1GB. Check out www.crucial.com/uk (ordering online qualifies you for a discount), and also the ads in the Shopping section of Macworld (from page 155) for the latest prices.

4. A way to back-up all the content on your old hard drive: an external CD-RW drive, a Zip drive, a hard drive, or a network backup-solution.

5. Old-fashioned hardware: a magnetic Phillips screwdriver, to reduce the risk of dropping screws into your iMac; a flathead screwdriver; and needle-nose pliers, helpful for grabbing and holding the tiny screws you'll find in the iMac.

6. A small box, to hold the removed screws so they don't roll away.

7. A grounding strap, to keep your iMac safe from static electricity. They cost less than £1 at electronics and computer stores.

8. A soft surface, such as a pillow, blanket, or towel, to prevent scratches on the monitor or case.

**9.** One hour of your time – or less.

Tray-Loading iMacs

1 **Prepare the iMac and crack the case** Before you can expose the inside of your tray-loading iMac to the outside world, you must prepare it for the operation.

Even if you intend only to upgrade your iMac's RAM, something could go wrong – causing your data to go the way of the dodo. Back-up your data to a network, the Internet (iDisk accounts are free at www.apple.com), or external media such as Zip disks or CD-RWs.

Unplug any cables attached to your iMac, including USB, modem, Ethernet, audio, and power cables.

To access the innards of your early iMac, you must place it monitor-side down. Protect the monitor from scratches by placing the iMac on a soft surface, such as a pillow, blanket, or towel. If you use a pillow, make sure it's flat enough to prevent the iMac from rocking while you're working on it.
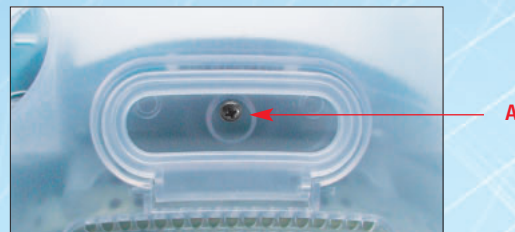
Turn your iMac so you can see its bottom (the white side). There, you'll see a handle with a Phillips screw in the middle (**A**). Remove this screw, and put it somewhere safe.

Retract the handle, and give it a gentle tug to remove the white plastic cover. Because the cover is secured in some places with plastic tabs, you'll hear a snapping sound. Don't worry – this sound is a normal part of the operation. Put the cover to one side.

2 **Venture inside the iMac** During this stage, you'll protect your iMac from a shocking experience, dislodge a few cables, remove more screws, and extract the iMac's core from the case.

If you have a grounding strap, attach it to your wrist and the iMac's metal case to release static build-up. If you don't have one, touch the iMac's metal case to discharge static.

You'll see four cables attached to a rectangular metal box – two large clumps of multi-coloured wires and two grey cables (**A**).

Remove the round grey cable to the right, and use a Phillips screwdriver to loosen the two screws that keep the larger grey cable clamped to the case.

Remove the large multicoloured cable by pressing down on the tab inside the metal cutout and pulling firmly on the connector. Then you have to pull straight up on the smaller multicoloured cable connector to disconnect it. Remove the small screw that holds the smaller multicoloured cable in place.

Remove the two screws beneath the clear plastic handle near the top of the case (just beneath the serial-number sticker) (**B**).

The motherboard/drive assembly is ready to be extracted. Move the cables out of the way, and pull straight up on the plastic handle.
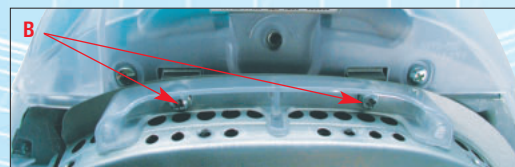
3 **Upgrade the RAM** These iMacs ship with a scant 32MB of RAM. You can add as much as 256MB of RAM (144-pin, PC100 SO-DIMM) to the RAM slot. As we went to press, RAM was inexpensive – a 128MB module costs £30 from www.crucial.com/uk.
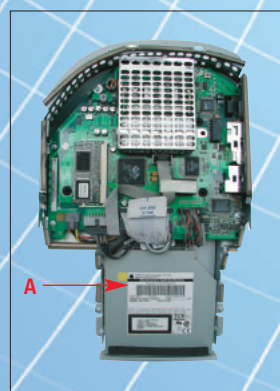
Position the motherboard/drive assembly so that the CD-ROM drive is closest to you (**A**).

Near the top of the motherboard is a shiny metal cover. To access the iMac's spare RAM slot, remove this cover by prying the side of the cover open with a flathead screwdriver. The cover's edges are sharp. To avoid injury, don't touch the edges with your hands.

Beneath the cover, you'll spy a white plastic bracket (**B**). This is where the RAM goes.

When you're handling RAM, don't touch the gold-plated contacts. Keep the new RAM in its static-proof bag until you're ready to install it.

Remove the RAM module from its bag, line up the notches in the RAM module with those in the RAM slot, and press the RAM into the slot at a 45-degree angle until it's securely seated. Now press down on the top of the RAM module until it snaps into place.

If you have a Rev. A iMac, you'll see a similar empty RAM socket on the left side of the motherboard. This is the video RAM (VRAM) socket. While you're inside your iMac, it's not a bad idea to max out your iMac's VRAM. The Rev A iMac came with just 2MB VRAM, but this can be upgraded by adding a 4MB SGRAM SO-DIMM card (£39 excluding VAT, Mad Macs, 0870 752 8888).
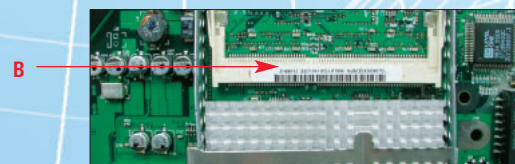
4 **Upgrade the hard drive** The Bondi Blue iMacs carried 4GB hard drives, and the five original fruit-flavoured iMacs had 6GB drives. If your iMac is running low on storage space, this step is for you. Compatible ATA hard drives are inexpensive. A 5,400rpm 10GB drive costs £79; 40GB, £115, both ex VAT (Mac & More 01442 870 300).
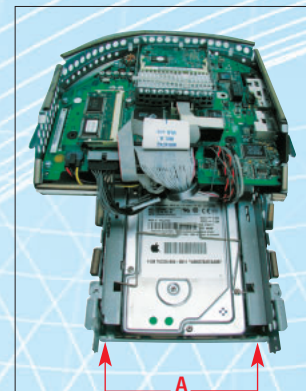
You must remove the CD-ROM drive to expose the hard drive beneath. The CD-ROM drive is held in place on the front of the drive mounting by a couple of hooks (**A**) that slip through slots in the drive cage. To remove the CD-ROM drive, push in the face of the drive to slip these hooks out of the slots, then lift the drive up and over the top of the cage. Once the CD-ROM drive is clear, disconnect its ribbon cable. Put the drive aside.

With the hard drive exposed, remove the metal clip over the drive and the two Phillips screws on the top of the cage – on the left and right sides of the drive (**B**). These screws secure the hard drive's bracket to the cage.

Pull the bracket from the cage, and disconnect the drive's data and power cables. Unscrew the bracket screws, remove the old drive, and set it aside.

With the new drive, reverse this process by attaching the bracket and cables, slipping the bracket back into the cage, screwing the bracket to the cage, reinstalling the clip over the drive, and replacing the CD-ROM drive.
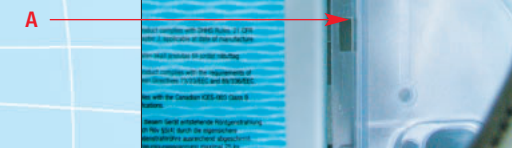
5 **Put it back together** Putting Humpty-iMac back together again is largely a matter of following the preceding steps in reverse order. However, you should be aware of some places where the process isn't as simple as it may seem.

Before reinserting your iMac's motherboard, make sure that all connectors and chips are firmly seated. Grasp the motherboard/drive assembly by the plastic handle, and slide it back into place. To do so, push the four cables aside, making sure they're clear of the assembly.

You'll see metal pins on the side of the drive cage. These pins must slide behind the iMac case's plastic rails (**A**). Be sure the front of the CD-ROM drive is flush with the front of the iMac.

Replace the two screws beneath the plastic handle. They'll go in more easily if you tilt the iMac away from you.

Reattach the large multi-coloured cable first, then the smaller multicoloured cable, then the screw that holds the smaller multicoloured cable in place, then the large grey cable, and finally the smaller grey cable.

Replace the cover by slipping the plastic lip at the bottom of the cover under the rim of the iMac's case. Snap the rest of the cover into place, and replace the single screw under the handle.
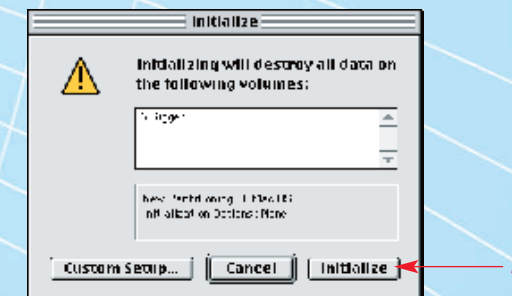
Replace the cables, and turn on your iMac.

6 **Install and restore your software** If you've upgraded the iMac's hard drive, the new drive likely contains not a shred of system software – meaning that your iMac can't boot from it. Here's how to make it more useful.

After switching on your iMac, you'll see a flashing folder icon with a question mark. This indicates that your iMac can't find a functioning System Folder. Insert an appropriate system-software installation disc into the CD-ROM drive – the Software Install disc that came with your iMac or a more recent installation disc, such as the Mac OS 9.1 system-software disc. The iMac should boot from this disc.

Open the Utilities folder on the disc, and launch Drive Setup. Select the iMac's hard drive in the Drive Setup window, and click on the Initialize button.

To format the drive as a single volume, click on the Initialize button (**A**) in the resulting window. To create partitions, click on Custom Setup and select the number of partitions you'd like from the Partitioning Scheme pop-up menu.

Run the Mac OS Install application on the CD-ROM to install a new system on the hard drive.

Go to About This Macintosh (in the Apple menu) to make sure the computer is registering your new RAM.

Finally, you can copy your backed-up data to the new hard drive and restart from the new hard drive.

Slot-Loading iMacs

1 **Prepare your computer** Before breaking into your slot-loading iMac's case to replace the hard drive, you'll need to back-up data. Disconnect all cables from the iMac, position the computer properly, and undo the iMac's back doors and latches.

Back-up the contents of your hard drive to an external hard drive, a network, the Internet, or some form of removable media. Shut down your iMac, and disconnect all cables from it, including peripherals and the power cord.

Turn your iMac upside down on a soft surface such as a towel, so that the monitor is facing away from you and the part of the case with the handle is on the soft surface.

Use a 5p piece or flathead screwdriver to open the latch on the door for RAM and AirPort access (**A**).

To discharge electricity that could harm your iMac, put a grounding strap around your wrist and attach it to the iMac's metal case. If you don't have a grounding strap, touch the iMac's metal case to discharge static.

Inside the case, you'll see RAM and an AirPort card (if you have one). Remove both the RAM and the AirPort card with needle-nose pliers or your fingers.

Locate the VGA port cover (**B**), and pry it off carefully with the flathead screwdriver.
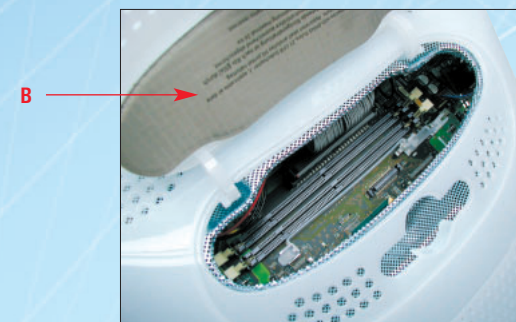
2 **Open the case** Now that you've backed-up your data and laid the groundwork, you're ready for the bulk of the job: taking apart and putting together the iMac's case.

Unscrew the four retaining screws: two under the VGA port and two under the height-adjustment stand. Put the screws in a safe place.

Your next challenge is removing the iMac's bottom panel. Look closely near the bottom of the monitor for the white plastic clips.

Gently lift the bottom part of the case, from the back side of the iMac toward the monitor (**A**), and remove it. You may break the clips; even if you don't, it may sound as though they're breaking. (Don't worry, the iMac will function with broken clips.)

Use a magnetic Phillips screwdriver to remove the four tiny screws around the outside of the metal grid that acts as a heat shield, and also the two on top of the heat shield (**B**). Take care not to drop a screw into your iMac. Leaving the screw inside could trip a wire. Wiggle the heat-shield gently while lifting it upward. It should come off completely.
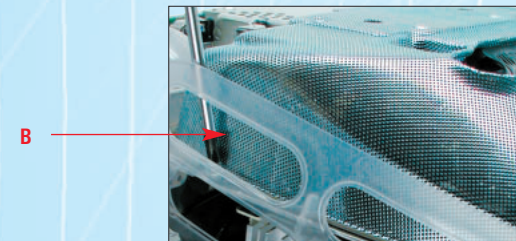
3 **Remove the original hard drive** Taking out your old hard drive is easy. Just disconnect the drive's cables, and free the drive from its housing by undoing some screws.

Locate the rectangular metal box that sits closest to the iMac's monitor and round speakers. Disconnect the data ribbon (**A**) and power connection (**B**) by tugging and wiggling them. It may take more than a gentle touch to persuade the power connector out of the socket. Just make sure you pull the connector itself and not the cable.
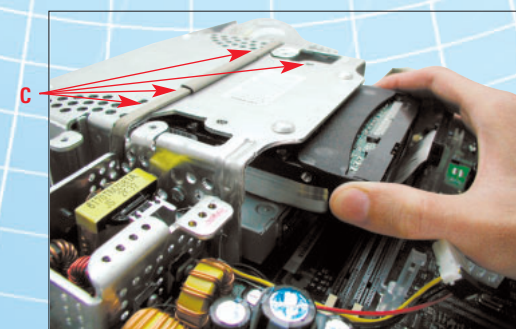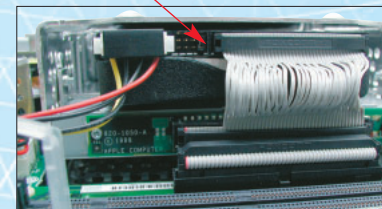
Loosen the four small screws on the top of the metal housing that hold your hard drive in place (**C**) and put them somewhere safe. Reach into the metal box and remove the hard drive. Set it aside.

4 **Install the new hard drive** You're now ready to install a larger-capacity hard drive. It's time to check the jumper configuration, line-up the drive, and fasten the screws.

Examine your new hard drive to make sure that the jumpers (**A**) are set for Master or Single. If they're not set correctly, follow the directions that came with the new hard drive to reset them.

Now put the new hard drive, with the ports facing out (so you can reconnect the data ribbon and power connection), into the metal housing, and align the screw holes in the metal housing with those on the hard drive. You may want to use the flathead screwdriver to help you prop the hard drive against the metal housing.

Replace the four small screws on top of the metal housing. Tighten the screws completely only when all four screws are aligned in the hard drive properly (**B**).

Replace the data ribbon and the power connection. Both may seem a little resistant, but be sure to push them in until they're snug.
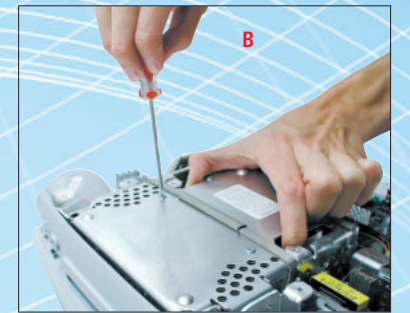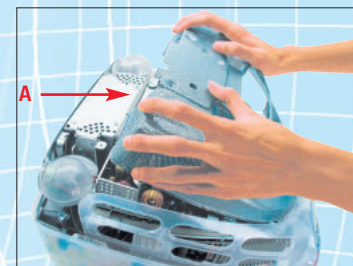
5 **Replace the outer case and install the RAM** It's time to close up your iMac's case. The RAM slot is accessible from the outside of the iMac, so you'll upgrade the RAM last.

Fit the heat shield back onto your iMac on the side closest to the VGA connector (**A**), and bring it down toward the hard drive. Another tricky spot involves replacing the six small screws that fasten the metal heat-shield to the bottom part of the iMac's case. Use your needle-nose pliers to help hold the tiny screws in place around the outside of the heat shield. The screw closest to the front left of the monitor is the most difficult, so do that one last.

Replace the white plastic case, starting at the iMac's monitor – where the plastic clips are – and going toward the VGA connector. Then you can replace the four screws you removed in step 2.

Now that your iMac is completely re-encased, open the RAM door with the flathead screwdriver or a 5p piece. Use your hands to line-up the RAM in the two slots, and then push it into place with your fingers (**B**). Replace the AirPort card, if you have one, in the same way.
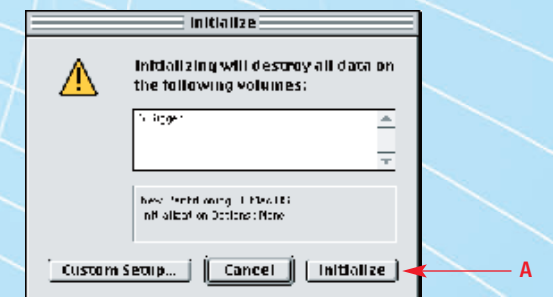
6 **Start up the iMac and restore your data** All that's left to do is initialize your new hard drive, reinstall Mac OS, and restore the data you backed up in step 1. Unfortunately, if you made a mistake in a previous step, this is when you'll find out.

Reconnect all the cables to your iMac, and turn on the computer. When you see a flashing folder icon with a question mark, insert the Mac OS CD.

Go to the Utilities folder on the disc, and launch Drive Setup. Select the iMac's hard drive in the Drive Setup window, and click on Initialize.

To format the drive as a single volume, click on the Initialize button (**A**) in the resulting window. You can create partitions by clicking on Custom Setup and selecting the appropriate number of partitions from the Partitioning Scheme pop-up menu.

If you plan to install Mac OS X someday, this is a good time to set one partition aside for it. Select Mac OS Extended in the Volume Info portion of this window.

Run the Mac OS Install application on the CD-ROM to install a new system on the hard drive.

Go to About This Macintosh (in the Apple menu) to make sure the computer is registering your new RAM.

Finally, you can copy your backed-up data to your new hard drive and restart your iMac. **MW**

Best-laid scans

Mid-range professional scanners tested and rated.

By David Fanning

Scanning for print has always been something of a dark art – until recently. Previously, colour experts used high-end drum scanners to produce top-quality images for print, drawing upon specialist skills and years of practice. But now, the mid-range professional-scanner market is different. Here, we look at the current offerings from the pro-scanner vendors. The ceiling on price is £4,000. The high-end pro-scanner market caters for those scanning thousands of images a day. These mid-range scanners are suitable for everyone, from solo designers to pre-press companies looking for batch-scanning and image-processing capabilities. Not only is this class of flatbed scanner good enough to make drum scanners obsolete, but neither do you need a degree in colour science to use them.

Expression 1680 Pro

The Expression Pro offers better resolution and density range than most other scanners at the price. The fact that it also comes with SilverFast should make it an obvious choice. Don't be put off by the fact that Epson was until recently a manufacturer of consumer scanners only. It may be new to the world of high-end scanning, yet the 1680 Pro is proof that it's offering great products. SilverFast puts the 1680 on the same footing as its competitors – meaning comparisons come down to hardware. Here also, the 1680 more than manages to hold its own.

Manufacturer	Epson
	www.epson.co.uk
Top resolution	1,600-x-3,200dpi
Density range	3.6D
Bit depth	48
Scanning area (reflective)	216-x-297mm
Scanning area (transparencies)	203-x-254mm
Format	A4
Dimensions	332-x-562-x-133mm
Interface	USB/SCSI
Software	SilverFast, Photoshop LE
Price	£859
Contact	0800 220 546

Software	▮▮▮▮▮▮▮▮ 8
Hardware	▮▮▮▮▮▮▮▮ 8
Value	▮▮▮▮▮▮▮▮▮ 9
Star Rating	★★★★/8.6

LinoScan 1400/1450

The 1400 is SCSI-based, while the 1450 uses FireWire. As with Umax, Heidelberg charges £100 more for FireWire than SCSI – but Heidelberg has also cranked up the overall price by £100 more than the equivalent Umax versions.

The other main difference between the LinoScans and the equivalent Umax models is that the 1400 and 1450 have LinoColor, while Umax models have SilverFast and PhotoPerfect, which are better for beginners. However, on both the 1400 and 1450, the competition is at least £100 cheaper.

Manufacturer	Heidelberg
	www.uk.heidelberg.com
Top resolution	1,200-x-2,400dpi
Density range	3.4D
Bit depth	42
Scanning area (reflective)	216-x-297mm
Scanning area (transparencies)	216-x-254mm
Format	A4
Dimensions	358-x-180-x-555mm
Interface	SCSI, FireWire (1450)
Software	LinoColor
Price	£999; £1,099 (1450)
Contact	01242 285 100

Software	▮▮▮▮▮▮▮ 7
Hardware	▮▮▮▮▮▮▮▮ 8
Value	▮▮▮▮▮▮▮ 7
Star Rating	★★★★/7.6

LinoScan 1800

Its top resolution is more than 3,000dpi – so you can scan up to ten times the size of any original. It's aimed at the pre-press and studio markets, which means you rarely – if ever – should have to outsource any scanning. This offers savings in the long run.

One feature of the 1800 is that it's the glass-bed itself that moves, rather than the scanning head. This is to keep the head as steady as possible – crucial at these extremely high resolutions. It does mean you need a safe place for the 1800, as the glass protrudes from the case as it scans.

Manufacturer	Heidelberg
	www.uk.heidelberg.com
Top resolution	3,048-x-3,048dpi
Density range	3.6D
Bit depth	42
Scanning area (reflective)	216-x-297mm
Scanning area (transparencies)	216-x-297mm
Format	A4
Dimensions	425-x-210-x-548mm
Interface	SCSI
Software	LinoColor
Price	£3,895
Contact	01242 285 100

Software	▮▮▮▮▮▮▮ 7
Hardware	▮▮▮▮▮▮▮▮▮ 9
Value	▮▮▮▮▮▮▮▮ 8
Star Rating	★★★★/8.3

ScanMaker 8700

Like the ArtixScan 1100, the 8700 uses a dual-media design. Although its specifications appear better – it has a higher resolution and more modern connectivity (FireWire and USB) – closer inspection reveals its density range is lower, at 3.4D. The 1100 has an impressive 3.7D, which gives greater detail in shadows and highlights.

The 8700's software bundle features Photoshop LE rather than the much more serious SilverFast. It does, though, include ScanWizard, Microtek's scanning software, which gives the user professional control over the scanning process.

Manufacturer	Microtek
	www.microtek.nl
Top resolution	1,200-x-2,400dpi
Density range	3.4D
Bit depth	42
Scanning area (reflective)	216-x-355mm
Scanning area (transparencies)	203-x-254mm
Format	A4 plus
Dimensions	332-x-562-x-133mm
Interface	USB/FireWire
Software	SilverFast, Photoshop LE
Price	£859
Contact	Johnson's Photopia 01782 753 300

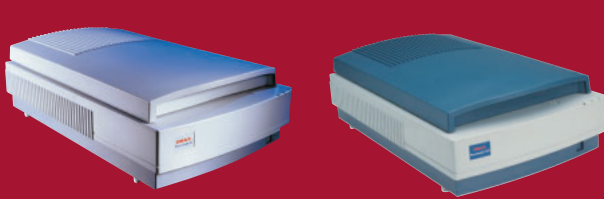|	
Software	▮▮▮▮▮▮▮▮ 8
Hardware	▮▮▮▮▮▮▮ 7
Value	▮▮▮▮▮▮▮▮ 8
Star Rating	★★★★/8.0

Artixscan 1100

The 1100 uses a patented dual-media design, so it has a flat glass-bed like other scanners, but also a tray for holding transparencies. These are scanned without touching the glass, meaning there are never problems with Newton rings – the oily halo-effect sometimes seen where a transparency touches a glass scanning bed. The dual-media feature also lets you arrange transparent media while scanning reflective media – making it feel bigger than A4. The specs are also impressive, with a maximum resolution of 1,000dpi and a density range of 3.7D.

Manufacturer	Microtek
	www.microtek.nl
Top resolution	1,000-x-2,000dpi
Density range	3.7D
Bit depth	42
Scanning area (reflective)	203-x-355mm
Scanning area (transparencies)	203-x-254mm
Format	A4 plus
Dimensions	566-x-386-x-157mm
Interface	SCSI
Software	SilverFast, ScanWizard
Price	£1,409
Contact	01782 753 300

Software	▮▮▮▮▮▮▮ 7
Hardware	▮▮▮▮▮▮▮▮ 8
Value	▮▮▮▮▮▮▮▮ 8
Star Rating	★★★★/8.0

ArtixScan 2500

Agfa no longer makes scanners, but its high-end range was produced by Microtek anyway – and you can probably still buy your favourite Agfa model from Microtek.

The ArtixScan is an A4 scanner, with an impressive 2,500dpi resolution, which is available only on a strip in the middle of the scanner; the standard 1,250dpi resolution is available on the full scanning bed. To reduce vibration, Microtek has added springs to the feet of the scanner – which means even the most maladroit of users will struggle to upset it's performance.

Manufacturer	Microtek
	www.microtek.nl
Resolution	1,250-x-2,500dpi (normal), and 2,500-x-2,500dpi (high)
Density range	3.4D
Bit depth	42
Scanning area (reflective)	203-x-355mm
Scanning area (transparencies)	203-x-305mm
Format	A4
Dimensions	675-x-485-x-240mm
Interface	SCSI
Software	SilverFast, ScanWizard
Price	£3,759
Contact	01782 753 300

Software	▮▮▮▮▮▮▮ 7
Hardware	▮▮▮▮▮▮▮ 7
Value	▮▮▮▮▮▮▮ 7
Star Rating	★★★★/8.0

PowerLook 1100/PowerLook III: Graphics versions, Pro versions and Photo versions

Although there are three versions of both the PowerLook 1100 and PowerLook III, the only difference between the two mini-ranges is the interface: the three 1100s use FireWire, while the three IIIs use SCSI (and are £100 cheaper). Software apart, the PowerLooks are identical.

The Graphics model comes with just Photoshop LE, so is unsuitable for tasks such as colour separation. The Pro bundle adds Binuscan PhotoPerfect, and is fine for colour separations and image correction. The Photo bundles SilverFast as well as the other two software titles, giving better handling of negatives.

The Pro and Photo packages offer plenty of high-end features, and its modest 1,200dpi resolution is fine for up to 400 per cent enlargements, so for most jobs it's OK. The top FireWire Photo bundle offers more than the equivalent Heidelberg 1450, and is £100 cheaper.

Model	1100 Graphics	1100 Pro	1100 Photo
Manufacturer	Umax	Umax,	Umax
	www.umax.co.uk	www.umax.co.uk	www.umax.co.uk
Top resolution	1,200-x-2,400dpi	1,200-x-2,400dpi	1,200-x-2,400dpi
Density range	3.4D	3.4D	3.4D
Bit depth	42	42	42
Scanning area (reflective)	216-x-297mm	216-x-297mm	216-x-297mm
Scanning area (transparencies)	216-x-254mm	216-x-254mm	216-x-254mm
Format	A4	A4	A4
Dimensions	358-x-180-x-555mm	358-x-180-x-555mm	358-x-180-x-555mm
Interface	FireWire (III, SCSI)	FireWire (III, SCSI)	FireWire (III, SCSI)
Software	Photoshop LE	Photoshop LE, PhotoPerfect	Photoshop LE, PhotoPerfect, SilverFast
Price	£699	£849	£999
Contact	0870 906 3300	0870 906 3300	0870 906 3300

Software	▮▮▮▮▮▮▮ 7	▮▮▮▮▮▮▮▮ 8	▮▮▮▮▮▮▮▮▮ 9
Hardware	▮▮▮▮▮▮▮▮ 8	▮▮▮▮▮▮▮▮ 8	▮▮▮▮▮▮▮▮ 8
Value	▮▮▮▮▮▮▮▮▮ 9	▮▮▮▮▮▮▮▮▮ 9	▮▮▮▮▮▮▮▮▮ 9
Star Rating	★★★★/8.7	★★★★/8.8	★★★★/8.9

Product scores

Bar-chart quality scores run from 0-10, and reflect specific aspects of performance. Star Rating is an overall score, encapsulating these individual scores, plus any other factors relevant to your choice of purchase.

Pro customers

As professionals, Web designers may feel they require a pro scanner, but a sub-£100 consumer scanner would suffice. This is because images used online need be no more than 72 dots per inch (dpi) – the resolution they'll be viewed on screen. That, and the fact they have no control how images will appear on a viewer's ill-calibrated monitor.

Where pro models come into their own is on transparency scanning. For those scanning images destined for print, transparencies are preferable to reflective media (photographs).

This is because transparent media offer a larger colour gamut and superior luminance. Even though some entry-level scanners boast transparency adaptors, they won't be able to produce a high-quality scan – even if the original has been shot and lit professionally.

The scanners on test here, though, all offer print-quality transparency scanning. If your tranny-scanning requirements are minimal, why not use a pre-press bureau, which offers high-end equipment and qualified operators? But for anyone else – even those needing to make a couple of scans a week – the convenience of your own professional scanner is considerable. There is also the added incentive that a little knowledge goes a long way in scanning – as long as close attention is paid to the manual.

Choosing a scanner

Thankfully, professional-scanner vendors are less prone to exaggerated performance-claims than their consumer equivalents. This means that quoted resolutions will not refer to the scanner's meaningless interpolated resolution. The most important figure by which to judge a scanner is **density range**. This is the range at which the scanner can identify differences in lightness or darkness. A scanner with a narrow density-range will miss detail in the highlights and shadows of an image. A good scanner, though, will see these details, and, even though you may not see them yourself in the raw scan, the image-processing software will render the detail. This is the main difference between a professional scanner and a consumer scanner: a consumer scanner might miss shadows or highlight detail. This, of course, doesn't matter when scanning holiday snaps, when this information is likely to be missing in your amateur photos anyway. But for print, this just won't do.

Resolution This is a less important guide to a scanner's calibre, and more a guide to how much you'll need to enlarge the original image. For example, if the original is a 35mm transparency, you'd need to scan at 1,800dpi to enlarge this to A4 size and 3,600dpi for it to print at A3. This level of performance requires a pro scanner. Incidently, the rule of thumb with enlarging trannies to A4 or A3 size is to shoot them in medium-format film (60mm).

Many of the models on test offer a resolution of 1,200dpi. For most print work this is fine, especially if images are shot in medium format. However, if occasional images need to be A4 size and above, then you have two choices; outsource these to a repro house, or buy one of the 3,000dpi models at the top end of the mid-range. In the short term, the former is cheaper, although in time the scanner will pay for itself in savings on repro bills alone.

Bit depth This is another oft-quoted value, but one that's less important than many would have

A changing market...

This year's professional-scanner round-up has fewer players than last year, because Agfa has pulled out of the market – taking its popular DuoScan scanners with it. However, Microtek – which made these scanners for Agfa – is still going strong, and has replaced the DuoScans with its equivalent ArtixScan range.

Umax and Heidelberg also offer models that are identical, with one being simply a rebadged version of the other. Umax is the manufacturer of the range, with Heidelberg simply adding its software and name. To make your choice even sparser, neither range has changed since last year. (Heidelberg's LinoScan 2650 at £5,495, does not fit our mind-range pro criteria.)

There has been such scant movement in the pro-scanner market because this market is very mature. When a high-tech product such as a scanner is first invented, there follows a period of intense innovation as manufacturers strive to outstrip their rivals. After time, the improvement-curve levels out. The scanner market is now firmly at the top of this bell-curve of innovation, with little room for improvement.

Top-of-the-range scanners now have high-enough resolutions that they don't need any more. Their density range is also high enough so that there's little more than can be done to improve image quality. However, software remains one area in which there is room for improvement. Much of it remains too arcane for anyone other than scanning veterans to get the most out of.

us believe. Bit-depth is related to the number of colours the scanner can see. The problem with judging a scanner purely on this figure is that output is usually lower than the quoted bit-depth. Even a scanner that uses 42-bit colour will pick the most relevant colours and output at a lower bit-depth. Another fact is that Photoshop is alone among image-editing software that can even open 48-bit images. Even then, it won't let you edit the image, but just use a few colour-correction functions. This is because its image-editing tools can't work at such a high bit-depth. The fact is, colour gamut represents only a tiny piece of the range of information available from the scanner.

Interface The traditional interface for high-end scanners was SCSI, but Apple dropped this from its computers three years ago. While installing a SCSI card is no big deal, the latest scanners are beginning to appear with FireWire interfaces.

There are no real speed gains to be had with FireWire – although it is more user-friendly, offering hot-pluggability. But as any SCSI veteran will tell you, SCSI-ID clashes and termination issues plagued the interface. But now that there are so few third-party SCSI peripherals, this will be less of an issue – as the scanner is likely to be the only SCSI device connected to your computer.

Scanner manufacturers are currently charging around £100 extra for FireWire, which is a little steep. However, it's still in your best interests – as SCSI is doomed to become increasingly rare.

Software

Achieving a quality scan has more to do with software than hardware. Hardware collects data, but this must be processed before it looks good. Colour is a complex subject and inevitably requires complex software. This can be a turn-off for novices unused to being faced with a bewildering range of technical options.

Because of this, most scanner vendors also offer training for their software – but at a price: expect to pay at least £250 for off-site training per person and £600 for on-site group courses. The latter option may also involve paying for your instructor's accommodation and travelling expenses. If publishers made scanning software more accessible, there'd be no call for training. After all, this isn't a great

advert for ease-of-use.

The field of scanning software has now been whittled down to three main players: LinoColor, from Heidelberg; LaserSoft's SilverFast; and ColorPro, from Binuscan. All claim theirs to be the best scanning software available – and of course, they can't all be right. However, each does have a niche to which they are more suited than the others.

LinoColor is exclusive to Heidelberg scanners. In the past, there was a lite version – LinoColor Easy – for the cheaper scanners in the range, although "Easy" was a tad misleading.

LinoColor is a professional tool, giving the operator full and detailed control of image rendering. It's also a daunting tool and requires – at the very least – a careful read of the manual, or better still, a day's training. As with all such software, it's easy once you know what you're doing. There are plenty of presets, so usually it's just a question of a tweak here and there.

There are easy-to-use tools for straightening crooked images and easy-to-access colour curves. So even though it looks daunting, LinoColour makes it relatively easy to produce high-quality images without going back to school.

SilverFast This also hails from Germany, from LaserSoft. Silverfast does make some attempt to be approachable, offering features designed to walk you through the scanning process. However, SilverFast stops short of being novice-friendly – being only as simple as a group of German boffins could make it.

One new feature offered by Silverfast 5.5 is the ability to handle negatives. This will be particularly valuable to photographers who use negative film as well as transparencies. If you choose a scanner that comes with Silverfast, be sure version 5.5 is included.

PhotoPerfect and Color Pro Suite While Silverfast and LinoColor both do a fine job of reproducing accurately original images and artwork, BinuScan takes an entirely different approach. Based on the assumption that not all images are perfect – over-exposure, underexposure, colour cast and artefacts spring to mind – Binuscan PhotoPerfect and Color Pro Suite seek to improve poor-quality images, rather than merely reproducing them accurately. Also, it does this automatically, with little input from the user once it's

set up. Many professional scanner-operators pooh-pooh this approach – mostly because it means the software takes control of something that usually requires an expert. Of course, if you aren't an expert, this is just the job.

Color Pro Suite is designed for busy scanning environments, using even more automation and workflow features, and is widely used by newspapers across Europe and the US. Apart from this, there's little difference between them.

It's difficult to say which of the three scanning applications is best, as each has its strengths, and is designed essentially for

slightly different classes of user. For old-hand colour-experts, LinoColor or Silverfast will feel familiar and easy to use. But beginners will almost certainly find the learning curve with Binuscan's products far less steep. They produce great images with a minimum of fuss.

If buying a scanner for over £3,000, you may find that the vendors will demo the software at your place of work. Read this article carefully, and don't be railroaded into a decision.

For those spending less, seeing the software in action will be more difficult. Your best bet is a Mac show such as MacExpo

2001 (November 22-24; www.macexpo.co.uk), or for the more adventurous, Apple Expo in Paris (September 26-30; www.apple-expo.com).

It may mean a bit of travel, but will give you an opportunity to see which software you feel comfortable with.

Buying advice

Finding a clear winner in such a slow-moving market is difficult, with things further complicated by the multitude of software options. Your scanning requirements will differ depending on your needs: old-school scanning pros will

opt for models bundled with either LinoColor or SilverFast. Binuscan will be a popular choice with less confident users.

As for the hardware, the Umax 3000 Special Edition offers the most for the money. It's a little cheaper than the equivalent Heidelberg model, but has more software capability.

At the other end of the range, the Heidelberg 1200 offers value for money, as it comes with high-end software: LinoColor once cost £2,000 – now it's bundled with this £349 scanner.

In the A3 range, the Epson Expression 160XL Pro is a supremely capable newcomer. **MW**

LinoScan 1200

This USB scanner is one of the cheaper models on test. Unlike the previous low-end Heidelberg scanners, this model comes with the full version of LinoColor, not the Easy flavour, which was a stripped-down version. In fact, the 1200 has the same software as the top scanners in the range.

The major difference of the 1200 to others in the range is the size of its transparency scanning area. Also, because of the 1200's affordability, a design department could buy more than one – and also invest in a high-end model for 35mm slides.

Manufacturer	Heidelberg
	www.uk.heidelberg.com
Top resolution	1,200-x-2,400dpi
Density range	2.8D
Bit depth	36
Scanning area (reflective)	216-x-355mm
Scanning area (transparencies)	216-x-297mm
Format	A4
Dimensions	350-x-170-x-542mm
Interface	USB
Software	LinoColour
Price	£349
Contact	01242 285 100

Software	▩▩▩▩▩▩▩	7
Hardware	▩▩▩▩▩▩▩	7
Value	▩▩▩▩▩▩▩▩▩	9

Star Rating ★★★★/8.1

PowerLook 3000 SE

The 3000 SE is one of the higher-end scanners on test. The resolution climbs to 3,048dpi – enough to scan slides for high-quality printing at 350mm deep. This is achieved thanks to a high-res mode that focuses the CCDs (charge couple devices) on a strip down the middle of the scanning bed. The SE has Binuscan Color Pro Suite, plus a set of film holders.

The Color Pro Suite is the ultimate in automatic scanning and colour correction. It's the full version of the Binuscan product and is used widely in the print-publishing trade.

Manufacturer	Umax
	www.umax.co.uk
Top resolution	3,048-x-3,048dpi
Density range	3.6D
Bit depth	42
Scanning area (reflective)	216-x-297mm
Scanning area (transparencies)	216-x-297mm
Format	A4
Dimensions	425-x-210-x-548mm
Interface	SCSI
Software	Color Pro Suite
Price	£3,695
Contact	0870 906 3300

Software	▩▩▩▩▩▩▩▩▩	9
hardware	▩▩▩▩▩▩▩▩▩	9
Value	▩▩▩▩▩▩▩▩▩	9

Star Rating ★★★★★/9.0

PowerLook 2100XL Pro

The 2100XL Pro is essentially an A3 version of the PowerLook 1100/III. It has an identical 1,200dpi resolution and density range of 3.4D. The A3 bed makes it easier to batch-scan bundles of images.

The Pro version includes PhotoPerfect, from Binuscan, but curiously not SilverFast. In theory, you could buy just the basic hardware, and purchase the software separately. The basic 2100XL (£1,499) comes with only MagicScan, Umax's own scanner software. Although useful, it's really just a driver, rather than a colour-management system.

Manufacturer	Umax
	www.umax.co.uk
Top resolution	800-x-1,600dpi
Density range	3.4D
Bit depth	42
Scanning area (reflective)	305-x-432mm
Scanning area (transparencies)	305-x-432mm
Format	A3
Dimensions	626-x-193-x-473mm
Interface	SCSI
Software	PhotoPerfect
Price	£1,899
Contact	0870 906 3300

Software	▩▩▩▩▩▩▩▩	8
Hardware	▩▩▩▩▩▩▩	7
Value	▩▩▩▩▩▩▩▩	8

Star Rating ★★★★/8.0

LinoScan 2200

The 2200 is available only in SCSI. As an A3 scanner, it lends itself to scanning large quantities of images at a single sweep. This makes it an ideal workhorse for studios and repro houses. As with the rest of the Heidelberg range, the difference between its machines and the Umax equivalents is the software: the Umax 2100XL doesn't ship with SilverFast, only PhotoPerfect. This means the 2200's LinoColor software will be the better bet for experienced users. It's also handy for scanning oversize art that's too big for A4 scanners.

Manufacturer	Heidelberg
	www.uk.heidelberg.com
Top resolution	800-x-1,600dpi
Density range	3.4D
Bit depth	42
Scanning area (reflective)	305-x-432mm
Scanning area (transparencies)	305-x-432mm
Format	A3
Dimensions	626-x-193-x-473mm
Interface	SCSI
Software	LinoColor
Price	£2,495
Contact	CPS, 01242 285 100

Software	▩▩▩▩▩▩▩	7
Hardware	▩▩▩▩▩▩▩	7
Value	▩▩▩▩▩▩▩	7

Star Rating ★★★★/7.3

Expression 1640XL Pro

The Pro version of the 1640XL comes with a transparency adaptor, though it's also available without this. Epson is new to the high-end scanner market, which has long been dominated by Umax, Microtek and Heidelberg. The one thing that makes this scanner a contender is that it ships with SilverFast. The hardware is also unique, and this 1,600dpi A3 scanner offers more than the equivalent Umax or Heidelberg models. The Epson also beats its rivals on density range, offering 3.6D to Umax's 3.4D. For a newcomer, it's off to a flyer.

Manufacturer	Epson
	www.epson.co.uk
Top resolution	1,600-x-3,200dpi
Density range	3.6D
Bit depth	48
Scanning area (reflective)	216-x-297mm
Scanning area (transparencies)	210-x-297mm
Format	A3
Dimensions	332-x-562-x-133mm
Interface	USB/SCSI
Software	SilverFast, Photoshop LE
Price	£2,219
Contact	0800 220 546

Software	▩▩▩▩▩▩▩▩	8
Hardware	▩▩▩▩▩▩▩▩	8
Value	▩▩▩▩▩▩▩▩	8

Star Rating ★★★★/8.3

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Quark attack

Macworld's exclusive look inside QuarkXPress 5.0's bid for the Web.

By David Blatner

Quark is known far and wide for marching to the beat of a different drummer. Whereas many other software companies aim for a 12- or 18-month release cycle, Quark (www.quark.com) took seven years to upgrade the desktop publishing standard QuarkXPress (£899, ex. VAT) from version 3.0 to 4.0. And with version 5.0, Quark has stayed true to form: it first spoke publicly about the upgrade in 1999, but it still hasn't announced a firm shipping date – even though the new version is expected on store shelves before the end of the year.

Quark has something to prove with this upgrade. Many customers are anxiously waiting to compare the next generations of XPress and its page-layout competitor, the £539 Adobe InDesign (www.adobe.com). The forthcoming version of InDesign (it doesn't have a firm arrival date, either) will add innovative capabilities such as object transparency to its already impressive feature set. Quark needs to produce an upgrade that will satisfy wavering customers and show them that it has an eye on the future.

XPress 5.0 represents an attempt to do both. This new version adds features – such as a table editor – that long-time print designers will welcome. But it also demonstrates Quark's belief that the future of publishing is inextricably linked to the Web.

I examined a pre-release version of XPress 5.0. At press time, it was still a work in progress and couldn't be tested for reliability or speed; however, I can give you a sneak peek at the most important changes to come.

From print to the Web

Publishers have long wanted an easy way to publish content in print and on the Web simultaneously. A couple of Quark XTensions came to the rescue. But BeyondPress, from Extensis (www.extensis.com), has not been updated in years, and HexMac's HexWeb XTension has been discontinued. And Quark was reluctant, until recently, to build HTML tools into XPress.

The old ways So how have print designers gotten their pages onto the Web if they don't use XTensions? Some of them create mock-ups in XPress or Adobe Photoshop and then pass the files (or the printouts) to Web-production people – a process fraught with problems because print designs don't always work on the Web. Other designers have taken the time to learn how to use dedicated Web-authoring tools.

But many designers like the relatively simple layout tools in XPress and feel that Web-authoring programs (and the rules of HTML they're based on) are mysterious and convoluted. Quark is betting that if you're not comfortable with traditional Web-authoring tools, you'll appreciate QuarkXPress 5.0's approach, which lets you use all of XPress's familiar page-layout tools to create an HTML Web page.

The new Web tools

Web documents and print documents are two separate things in XPress 5.0. Importantly, you can't convert a Web document into a print document (or vice versa). If you need to re-purpose a print document, you must create a new Web document and drag text and picture boxes to it from the print file. (See "Make a Web page in XPress.")

When you open a new Web document, XPress 5.0 displays the Web Tools palette, which offers new tools for defining image maps and placing form elements (such as buttons, text fields, and pop-up menus) on your pages. (See "The new tools.")

Making pictures If you have used TIFF images in your document, XPress 5.0 can easily convert them to JPEG or GIF format for you. However, you don't get nearly the control over the process that Photoshop provides. For instance, though you can specify a Web Safe palette for a GIF image, there's no way to optimize a graphic to reduce its file size. XPress 5.0 can convert an EPS image, but the resulting GIF will be based on the low-resolution preview embedded in your document; many people will find the quality of such images unacceptable.

XPress 5.0 does let you create basic rollovers (which cause a different image to be displayed in the Web browser when a viewer's cursor moves over them). However, the rollover image can't be a TIFF or EPS – you must use a JPEG or GIF.

Setting Type XPress 5.0 can circumvent typographic limitations of HTML by converting blocks of type into pictures – helpful when a headline or logo must look a certain way. This means you can harness all the power of XPress's type tools to set type on a path or kern display text to perfection, and then create a GIF to preserve the results. You don't get that level of control over type in either Photoshop or Macromedia Fireworks.

However, when you're working with text you don't want to convert into an image, your options in XPress 5.0 are more limited. With text on the Web, you're at the mercy of your viewers: the only fonts they see in their Web browsers are the ones loaded on their computers. You can set the text in your Web page to be 14-point Franklin Gothic, but if people don't have it loaded, chances are they'll see Helvetica or Arial instead.

XPress 5.0 uses your standard document style sheets to create Cascading Style Sheets (CSS) – an extension to HTML that allows you to control basic things such as font size, colour, and page positioning. The font-styling aspects of CSS work in version 4.0 browsers and later, though not always consistently. You can either embed the style information within your Web page, or link multiple Web pages to an external CSS file.

The problem is, the application doesn't let you edit the CSS. And unlike most dedicated Web-authoring programs, it doesn't let you choose a desired font set (for example: Garamond, Times New Roman, Times, serif) instead of a specific font. When you designate a font set, a browser will display the first font that the viewer has installed from that set.

Linking Up One of XPress 5.0's more elegant new Web features is the Hyperlinks palette, which you use to assign links to text and objects on your pages. It keeps track of the links you've used so you can reapply them quickly later. The palette also makes building HTML anchors – links to a specific place on a page – a breeze.

Laying it out When you export your HTML page, XPress 5.0 tries to re-create your page geometry (the way objects are placed on the page) by using HTML tables; this ensures that most Web browsers will display the page correctly.

In some cases – such as when text is placed over a graphic – XPress may also use CSS absolute positioning, which tells the Web browser exactly where to place each object on screen. However, these pages may not display correctly in pre–version 5.0 Web browsers. And unfortunately, you can't choose to not use CSS absolute positioning (to prevent such problems).

Limitations Let's be clear: though XPress 5.0 lets you create Web pages, it has nowhere near the power of Macromedia Dreamweaver or Adobe GoLive. XPress 5.0

QuarkXPress 5.0: The new tools

Print and Web documents are built with many of the same XPress tools. New features include the Web Tools palette (**A**), the Layers palette (**B**), the Hyperlinks palette (**C**), and the AppleScript Scripting menu (**D**). The Colours palette now shows whether colours are spot or process inks, and includes special HTML colours (**E**) for Web documents.

Make a Web page in XPress

Why learn a whole new Web-authoring program when you already know how to lay out pages in QuarkXPress? Quark is betting that you'd rather try your hand with version 5.0's Web tools, which are designed to ease the transition from print to the Internet. Here's how to make a simple Web page in QuarkXPress 5.0.

1 **Create a blank Web document**
You can't convert a print document into a Web document, but you can create a new Web document and then copy and paste (or drag) objects to it.
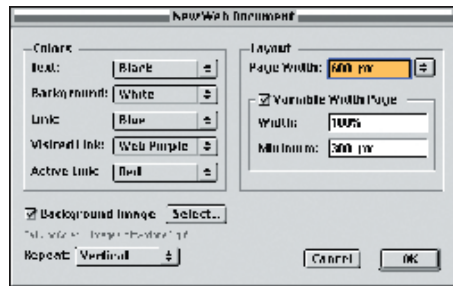
Select File: New: Web Document (or press ⌘-option-shift-N) to bring up the New Web Document dialog box. In here, you can determine the document's pixel dimensions, text and background colours, and more. To change these settings later, select Page: Page Properties. In the Page Properties dialog box, you can also assign a page title (which will appear at the top of the window in the viewer's Web browser) and meta tags, such as keywords.

2 **Lay out your page**
Once you have a Web document open, you can use almost every feature in XPress to design your Web page, including the Space/Align feature, the Layers palette, and even text on a bézier path. If HTML doesn't support something you've produced, XPress can convert it to a graphic.
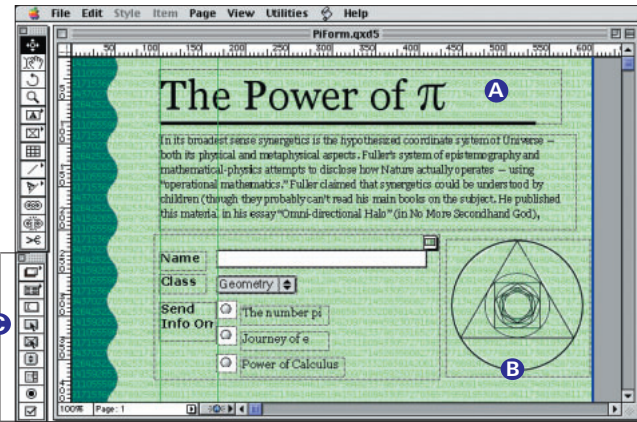
Place text boxes, picture boxes, and lines around your page, and use guides to align objects. If you want to preserve the look of special text, such as a headline (**A**), you can turn it into a GIF. Select the text box, choose Item: Modify, and activate the Convert To Graphic On Export option. If you import TIFF images (**B**), XPress 5.0 can convert them to GIF or JPEG automatically when you export the HTML file. However, XPress doesn't offer much control over the conversion. Your choices for GIF images are: whether to use interlacing; whether to use dithering; and which kind of palette to use – Web Safe, Adaptive, Mac OS, or Windows.
XPress 5.0 does offer 12 new tools in the Web Tools palette (**C**); three are hidden from view here. The three image-mapping tools let you define areas of your graphics that are hot (containing hyperlinks).
The nine other Web tools help you build forms with checkboxes, text-entry fields, and pop-up menus. To make these elements interactive, QuarkXPress provides a place for you to enter the URL of the CGI script (on your Web server).

3 **Assign hyperlinks**
To create hyperlinks in your page, use the Hyperlinks palette. XPress lets you assign a link from an image or text selection in your document to any other page in your site or on the Web. You can also assign links within a page (anchors) from this palette.
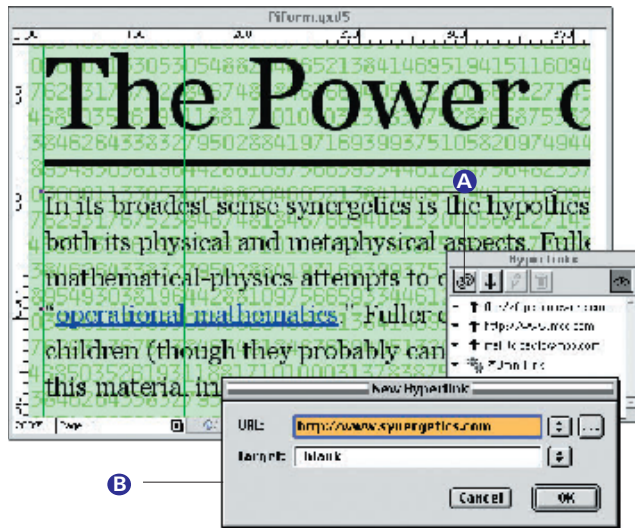
First, select some text or a picture box from your document, and click on the Link button (**A**) in the Hyperlinks palette. Then type the link into the New Hyperlink dialog box (**B**). Or if you prefer, you can select a prefix (such as http:// or mailto:) from the pop-up menu. The new hyperlink will be saved along with your file.

4 **Export the finished HTML**
QuarkXPress 5.0 can build pages, but to view the results properly you need a Web browser such as Microsoft Internet Explorer or Netscape Navigator.
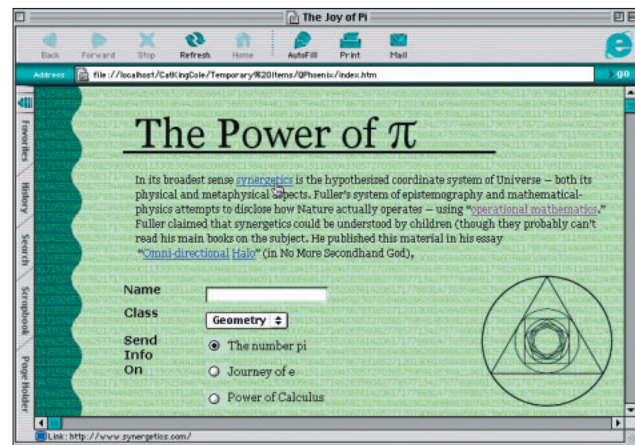
To preview your file in a Web browser before your final export, click on the Preview button (it looks like a globe) in the lower left corner of the document window. This exports a temporary HTML file and launches your Web browser. When you're happy with your Web page, export a final HTML document by selecting File: Export: HTML.

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won't let you manage a site with multiple Web pages or check for broken links. It has no tools with which to create a complicated site architecture. It won't let you write custom JavaScript into your HTML. In XPress, you can't directly access the HTML code to fix mistakes. And it's important to note that there is no way to open an HTML page in XPress 5.0 to edit it.

Quark has also left out a lot of the functionality found in third-party XTensions – such as the ability to export headlines and stories without their page geometry. While future versions of XPress will surely be sturdier, this one will appeal primarily to people who either create basic Web pages or want to design first-draft layouts in XPress – and who can then leave the HTML tweaking to Web geeks. And we'll have to wait for the final XPress 5.0 to see whether the program produces clean HTML (code without a lot of extraneous information) – a major consideration.

XML for all
Perhaps one of the most powerful yet subtle new features in XPress 5.0 is its ability to import and export XML files using Quark's avenue.quark software, which will be bundled with the upgrade. (Currently, Quark sells this XTension for £149.) XML lets you separate content from form so you can import the same content into multiple templates and have it look different in each – perhaps one template for print, another for the Web, and a third for a PDF document. (See "Inside XML", November 2000.)

While the XML tools will likely be of most interest to large publishers who have database-driven publishing systems (a magazine with all its content stored in databases, for example), XML will enable even small shops to create e-books quickly. Since this XTension will be included with every copy of XPress 5.0, curious designers and production people will have an opportunity to experiment with XML.

The new table tools
Web tools are version 5.0's most radical additions, but you'll also find some new features long awaited by print designers. Building tables in QuarkXPress has always been difficult. Historically, it has involved painstakingly setting tab stops in a text box or with the help of an XTension, but now version 5.0 boasts true table-making tools.

There are two new ways to create a table: drawing a rectangle with the Table tool, or selecting text (typically comma- or tab-delimited text) and choosing Convert Text To Table from the context-sensitive menu. Either way gets you a basic table that you can format many ways. For instance, you can resize rows, columns, or your entire table.

XPress 5.0 also lets you merge table cells, useful when headings span more than one row or column. You can place either text or a graphic into a table cell, and even rotate the cell's contents. In short, you can do to a table cell anything you can do to a text or picture box. (See "Making tables.")

Rough edges What's missing? To begin with, XPress 5.0 cannot import Microsoft Word tables as XPress tables. For the many designers who receive content in this form, that'll be a big pain. Also, you still have to do some formatting manually – such as the common practice of placing a coloured tint behind every other row.

These missed little details add up to more time spent futzing. (Some of these features may be more polished by the time the final product is released.)

The new Layers palette
While PageMaker and InDesign have had Layers palettes for years, XPress users have had to purchase layers XTensions. The more complex your documents are, the more you'll like XPress 5.0's Layers palette, which lets you group objects into named layers that can be hidden, locked, suppressed (when the items are visible but won't print out), and moved in front of or behind other layers.
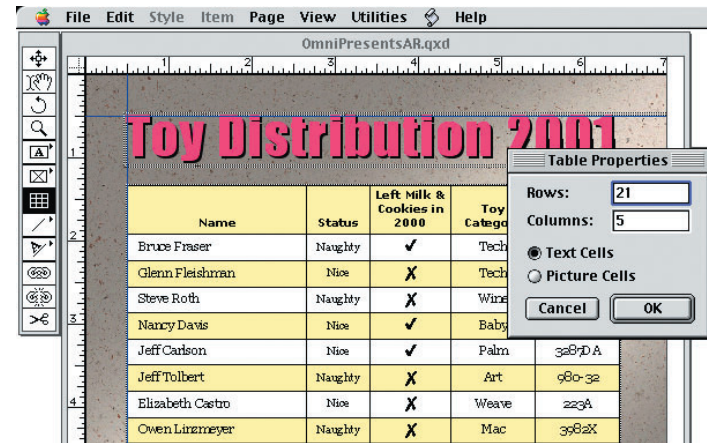
Say you need to create unique documents for each of ten salespeople. The documents are the same except for some personalized information in one section. You could make one file and put the custom information on a different layer for each person; only the document layers that are visible will print.

Each layer is assigned its own colour, and each object on that layer is tagged with that colour, which is very helpful when you're working with a lot of layers. Locking a layer is essentially the same as activating the Lock feature for each object on that layer. Unfortunately, Quark hasn't beefed-up XPress's Lock feature, so locked objects can still be altered in several ways, including with the arrow keys.

Interface improvements
Although the Web features, the Table tool, and the Layers palette are the flashiest elements in this upgrade, about two dozen smaller changes have been introduced to the feature set and interface. Many improve on existing features, but some are completely new. The more subtle enhancements may not result in great time savings, but they will certainly be welcomed by users.

Contextual Menus One of my favourite new features is the context-sensitive menu. Control-click anywhere on your document, and a pop-up menu appears with options relevant to wherever you've clicked. For example, control-click on a text box, and XPress gives you options that apply to text boxes (Get Text, Save Text, and so on). Control-click on the rulers for a quick way to change your measurement units from inches to picas. In fact, the context-sensitive menus now provide the only way to perform some functions, such as Fit Box To Picture.

Convenient colour Anyone who has accidentally chosen a spot colour instead of a process colour (and had to pay for rerunning film separations) will be relieved that the Colours palette now clearly identifies the two kinds of colour. Even better, you can save time by creating new colours within dialog boxes (just choose Other instead of an already-built colour). For instance, if you're inside the Modify dialog box and don't see the colour you want, select Other to create it on-the-fly rather than leaving that dialog box and opening Colours from the Edit menu.

Following user-feedback that the Find/Change dialog box was lacking, Quark has added colour options; you can now search for (and change) coloured text in XPress.

Opaque boxes In version 4.0, Quark changed the text-box behaviour: by typing in a transparent text box, the box's background remained transparent, instead of becoming opaque. Some love this, because it retains the page's look-&-feel as they edit; others prefer opaque boxes, saying they ease editing in a box that overlays a picture or blend. In version 5.0, the Document Preferences dialog box lets you choose between the two methods.

Text insets In previous versions of XPress, the Text Inset option was applied to all four sides of a text box; if

Making tables
Click and drag to build a table with QuarkXPress 5.0's Table tool. Each cell of a table is editable as though it were a separate text or picture box. You can also format individual border lines between cells, and frames around tables.

QuarkXPress 5.0 features at a glance

■ **Web Tools** Use the new Web tools to create image maps, forms, hyperlinks, and rollovers.

■ **Layers** XPress finally has a Layers palette (similar to the ones in Adobe Illustrator and InDesign), which lets you assign objects to named layers. You can choose to make layers visible or invisible.

■ **Easy Tables** Build basic tables quickly with the new Table tool. You can make cells that straddle columns or rows, and even mix pictures and text together. XPress won't import Microsoft Word tables, though.

■ **XML support** Quark will ship the avenue.quark Xtension – now sold for $199 – with XPress 5.0. It lets you import and export XML files.

■ **Font and profile collection** The Collect For Output feature can gather a document's fonts and ICC profiles for your service bureau.

■ **Colour improvements** The Colours palette distinguishes between spot and process colours, and Quark's colour-management system lets you specify rendering intents. You can also create Web Safe colours.

■ **Flexible text and picture boxes** You can adjust the inset of text separately for all four sides of a box, and the size of a picture box to fit a picture.

■ **Indexing evolution** Indexing hasn't changed much, but a few small improvements make working with long documents much easier.

■ **Printing flexibility** The Print dialog box has an enhanced Preview tab. XPress now prints to non-PostScript printers (such as colour ink-jets) better than ever.

■ **Context-sensitive menus** Control-click to reveal menus specific to where you're clicking. QuarkXPress has finally entered the 1990s!

button changes to Add Reversed – very useful when you want to index Jay Nelson as Nelson, Jay.

Printing progress

The cost of ink-jet printers has fallen dramatically in recent years – so dramatically that almost everyone has bought one. Designers find ink-jets particularly handy for printing out rough copies of their designs. The problem is, QuarkXPress has always assumed that users are printing to a PostScript printer, which most ink-jets are not. The results of this conflict – if the document prints at all – are poor colour and poor graphics quality.

Quark has finally responded: XPress 5.0 has better support for non-PostScript printers. For instance, it lets you print thumbnails of your document, reduce or enlarge your page image at print time, and – most important – send composite RGB data to the printer instead of the data for the washed-out CMYK colours that so many people had complained about.

PostScript lovers will be delighted to learn that the Preview tab of the Print dialog box is also greatly improved; you can now get a quick overview of what your printed page will look like. Best of all, the preview indicates whether the Page Flip or Negative options have been selected. This will please bureaus that have been burned by accidentally printing files with incorrect settings.

Better PDF support

The ability to output PDF files directly from XPress documents – without the help of Acrobat Distiller – has been on many wish lists. But last year Quark quietly announced it wouldn't deliver this feature; indeed, XPress 5.0 still requires the £205 Adobe Acrobat package to create PDF files. However, if you need to include interactive elements (such as bookmarks) with your PDFs, you'll be glad to know that XPress 5.0 can automatically generate links from your document's table of contents, index, and any text tagged with a hyperlink. But in the end, the new PDF export feature isn't as rich as Techno Design's £249 PDF DesignPro XTension (**www.techno-design.com**; XChange, 020 7588 5588). For example, XPress still can't translate multiple documents into a single PDF.

Five not yet live

Remember that this overview is based on beta software, and that Quark – like most companies – has been known to change interface elements or even add or remove features at the last minute. But this much is certain: Quark is deeply committed to the Web and has embraced HTML and XML.

On the other hand, QuarkXPress 5.0 will not be a native Mac OS X application. Quark promises that the next version (5.X) will be Carbonized, but officials aren't ready to say when it will be released. (They have let it slip that 5.X will accommodate some key customer requests, including multiple undos.) Adobe recently announced that InDesign's next version will be OS X native.

Print lives Looking down the list of XPress's new features, many print designers may feel frustrated that Quark has invested so many resources in Web tools. Many of us have waited a long time for a built-in story editor, high-quality screen previews of EPS and TIFF images, multiple undos, transparency, footnotes, and more. (And many of these features are already available in InDesign.) As it stands now, XPress 5.0 is plainly an evolution, not a revolution, for print publishers who don't need to re-purpose content for the Web.

Look to the future The publishing world is at a crossroads. Will designers upgrade to XPress 5.0 or choose the next version of InDesign? Will XPress 5.0's Web tools satisfy, or is Quark too late for the Web? These questions will be answered after Quark and Adobe release the final versions of their new products. But one thing's for sure: it's a fascinating time for publishing. **MW**

Contributing Editor David Blatner is the author of The QuarkXPress 4 Book *(Peachpit Press, 1998) and the upcoming* Real World QuarkXPress 5 *(Peachpit Press), and he is co-author of* Real World Photoshop 6 *(Peachpit Press, 2001). Find him at* **www.moo.com**.

you set it to two picas, XPress would push the text away from all sides of the text box by that amount. Now you can set the Text Inset value for each side individually, which is very helpful if you need to change where text sits in a box vertically but not horizontally (or vice versa).

Character lists The current Lists feature can create a table of contents by collecting a list of all the paragraphs tagged with particular paragraph style sheets (such as Heading1 and Heading2). QuarkXPress 5.0 goes further, letting you also gather text tagged with character style sheets. You can tag all the company names mentioned in your magazine with a character style, for example, and then use the Lists feature to quickly build an index of them.

Better books To help people create long documents, QuarkXPress 4.0 made it possible to bundle separate documents into a book, which acts much like one long document. You can use the Synchronize button in the Book palette to force the grouped documents to use all the same style-sheet definitions, colours, hyphenation and justification settings, and so on. XPress 5.0 lets you control which settings get synchronized – so you can synchronize the style sheets but not the colours, for example.

Better collection For the past eight years or so, QuarkXPress's Collect For Output feature has helped designers to gather documents and linked graphics in preparation for sending them to a service bureau. But because of legal concerns, it has not collected fonts and ICC colour profiles. Apparently, Quark's lawyers are finally assuaged, and XPress 5.0 gathers these, too. Hooray!

Improved indexing Few people use the Index palette, but those who do will be pleased that it now has an Add All button. This means that, instead of adding each instance of a word or phrase separately, they can be added with one click. And when you hold down the option key, the Add

Event horizon

Ten steps to help organize your life with Microsoft Entourage. By Nan Barber and David Reynolds

If it weren't for its Calendar and Tasks capabilities, Entourage would be little more than Outlook Express, Microsoft's free email-program. But sure enough, Entourage makes a very good time manager – it includes both a calendar and a list of things to do.

The best part about all of this is that these data bits are smoothly integrated with Entourage's email and address-book features, so that you can pull off such software stunts as inviting people (via email) to meetings that you schedule (on the calendar), all without leaving the program.

You can open the Entourage calendar either by clicking the Calendar icon in the Folder list (which puts the calendar in the pane to the right) or by choosing Window-Calendar (which opens the calendar in its own window; ⌘-4 is a shortcut).

In either case, the result is the same – your calendar shows up with all scheduled events listed on the appropriate days at the appropriate times (see Appointment overview).

The calendar's three primary displays show a miniature overview calendar, a detailed calendar that can show anything from a single day to six weeks, and a list of calendar events and to-do items that are due today.

Time scale

The detail calendar (the primary window-filling display shown in Appointment overview) can zoom into a single day, showing what's scheduled minute-by-minute, or it can show up to six weeks at a time.

Entourage offers two kinds of views: a month view, which looks like every wall calendar you've ever seen, and a column view, in which you see up to seven days' worth of events displayed as vertical timelines (see Entourage date details).

Switching between the main calendar's views is as easy as selecting the days in the overview calendar that you want to have show up in the detail calendar. For example, to make the calendar show nothing but an important three-day stretch in your life, simply drag the cursor across those three calendar squares in the mini-calendar at top right.

Appointment overview

When placed in the main Entourage window, the Calendar module shows a list of calendar events, tasks, an overview of adjacent months, and a big view of the current dates selected in the overview calendar. Holidays – which you have to import from a separate file – appear in the large detail calendar. At the top of the window, Entourage offers a calendar-specific toolbar for easy access to common commands.

Folder List   Toolbar   What's up today   Overview Calendar
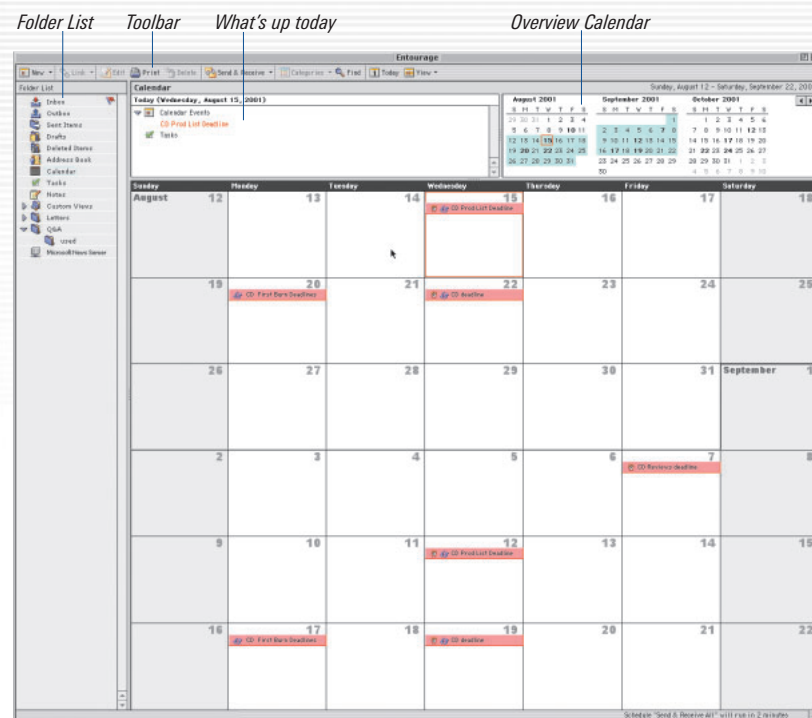
The View pop-up menu in the calendar toolbar provides another way to control what the main calendar shows. This menu has five choices:
■ Day shows the appointments for a single day in the main calendar area, broken down by time slot.
■ Week fills the main display area with seven columns, reflecting the week that contains the selected day or days.

■ Work Week shows five columns, representing the work days of the week, which contains whatever day or days you had highlighted.
■ Month shows the entire month that contains the selected day or days.
■ List, unlike the other views, doesn't offer a vertical grid of time slots. Instead, it offers a simple list of events scheduled for the currently selected day or days, as shown in Entourage date details.

Fortunately, most of Entourage's calendar is pretty intuitive. After all, with the exception of one unfortunate Gregorian incident, we've been using calendars successfully for centuries.

Blinding dates

In many ways, Entourage's calendar is not so different from those analogue versions we leave hanging on our walls for months past their natural life span. But Entourage offers several advantages over paper calendars. For example:
■ Entourage can automate the process of entering repeating events, such as weekly staff-meetings or gym workout dates.
■ Entourage can give you a gentle nudge (with a reminder in a pop-up dialog box) when an important date is approaching.
■ Entourage can automatically email other people to let them know about important meetings that involve them.

You can record an appointment in

any of several ways, listed here in order of decreasing efficiency.
■ When viewing a column view, drag vertically through the time slots that represent the appointment's duration, and then double-click within the highlighted area.
■ Using either the mini-calendar or the full-size one, double-click the appropriate date.
■ Choose File-New-Calendar Event.
■ Click the New toolbar button. (If you're not already viewing your calendar, you should use the New button as a menu instead, choosing Calendar Event from the list that pops up.)

Setting appointments

In each case, Entourage brings up an untitled new calendar event window. Here's an unusually elaborate example of how you might enter an appointment:

1. Type a name for this appointment into the Subject line. For example, you might type Fly to Glasgow.

2. Press Tab to jump to the Location field. Specify where this event is to take place.

This field is an unusual touch for a Mac calendar program, but it makes a lot of sense. If you think about it, almost everyone needs to record where a meeting is to take place whenever such an appointment comes up.

You can also leave this field empty if it's not especially pertinent to the appointment you're recording.

3. Press Tab. Specify the starting date, if necessary. If you began this entire exercise by double-clicking a square on, or by dragging through time slots on one of the Entourage calendar displays, you can skip this step; Entourage has automatically filled in the date you double-clicked.

Otherwise, you can change the date here in either of two ways. First, you can edit the date displayed here; you can specify a date in almost any format, such as 12/12/02, 4-4-01, or Nov 14. (If you omit the year, Entourage assumes you mean this year.)

Or you may prefer to click the tiny calendar button next to the Starting Date field. A mini-calendar appears; move to the month you want by clicking the arrows at the top, and then click the date you want (or the Today button) to close the mini-calendar. You've just filled in the Starting Date and Ending Date fields.

4. Press Tab. Specify the ending date. Most events, thank goodness, start and end on the same day. Entourage saves you time by making that assumption, and setting both Starting and Ending dates to match. (The only time you have to type the ending date manually is when you've typed the starting date manually; in that event, Entourage doesn't update the Ending Date field automatically.)

5. Turn off the "All day event" checkbox, if necessary, and then specify the starting and ending times.

If you opened this dialog box by dragging through time slots on the Entourage calendar, you can skip this step; Entourage has already filled in the starting- and ending-time boxes for you.

Otherwise, turn off "All day event" (unless,

of course, this event really will last all day; we've all had meetings like that). Doing so makes the starting- and ending-time boxes appear for the first time. You can adjust the times shown here by typing, clicking buttons, or a combination. For example, start by clicking the hour, then increase or decrease this number by clicking either the arrow buttons or by pressing your up and down arrow keys. Press Tab to highlight the minutes, and repeat the arrow buttons-or-keys business. Finally, press Tab to highlight the AM/PM indicator, and type either A or P to change it, if necessary. Continue pressing Tab to highlight the ending-time field.

By now, you're probably exhausted just reading about all these steps required to set up, say, a lunch meeting; that's why it makes much more sense to begin the appointment-entering process by dragging vertically through an Entourage calendar column-display, which spares you from having to specify the date and time.

6. If this event will recur according to a regular schedule, click Recurrence.

The Recurring Event window opens (see Entourage's week links), in which you can indicate how often the event recurs (daily, weekly, monthly, or yearly). Once you've clicked the appropriate button, you get an additional set of controls that offer such plain-English variations as "Every January 14", "The second Tuesday of January", "The third Tuesday of every ___ months", and so on. The bottom part of the box lets you indicate how long this event will keep repeating.

If you click "No end date", you'll be stuck with seeing this event repeating on your calendar until the end of time (a good choice for recording, say, your anniversary – especially if your spouse might be consulting the same calendar). You can also turn on "End after ___ occurrences", which is a useful option for car payments if you know how many more you have to make. You can also turn on "End by:", and specify a date that will cut off the repetitions; use this option to indicate the last day of school, for example.

Click OK when you've finished setting up how events will repeat. Just below the Recurrence button, you see a plain-English summary of the options you set up.

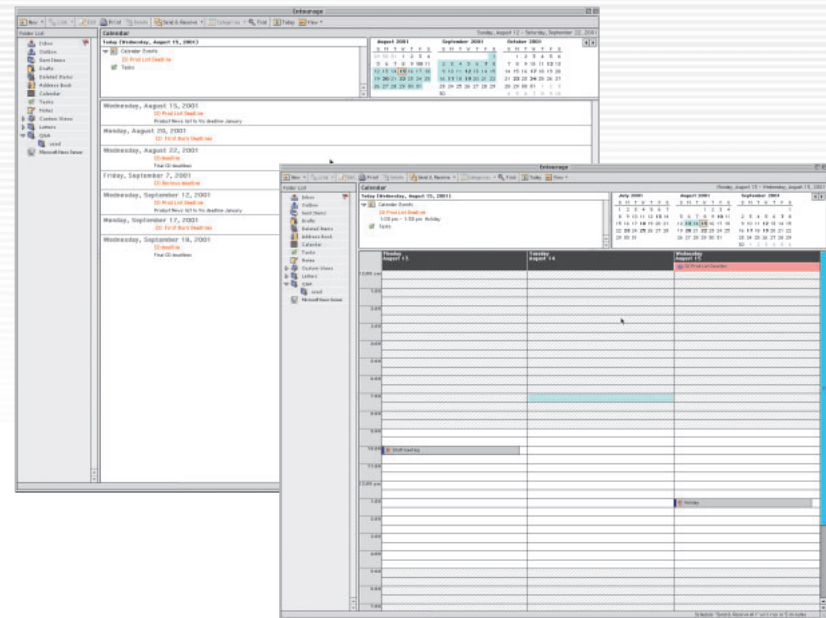**7.** Set up a reminder, if you like.

Forget remembering

The Reminder section of the dialog box lets you set up a reminder that will pop up on your screen when the time for your reminder passes. (A Microsoft Office program must be running in order to have reminder windows pop up – otherwise, events will stay in limbo until you launch one, at which time they'll pop up.) You can specify how much advance notice you want for this particular appointment; if it's a TV show you like to watch, you might set up a reminder only five minutes before air time; if it's a birthday, you might set up a two-day warning to give yourself enough time to buy a present; and so on. (Entourage starts out proposing 15 minutes in advance for every reminder; you can change this default setting in the Edit-Preferences-General-General tab.)

If the event requires a little planning for

travel, turn on "Add travel time" and enter the amount of cushion that you want to leave for traffic, getting lost, and so on.

8. Press Tab. In the white, empty Notes area, type or paste any helpful text.

Here's your chance to customize your calendar event. You can add any text that you like in the notes area – driving directions, contact phone numbers, a call history, or whatever; you can fit several pages' worth of information here.

9. Specify a category for this appointment, using the pop-up menu at the right end of the toolbar.

Entourage's colour-coded categories are helpful in distinguishing your calendar events at a glance. Family events might show up in blue, for example, or work events in red.

10. Click Save (or press ⌘-S), then close the event window (by pressing ⌘-W, for example). Your newly scheduled event now shows up on the calendar, complete with the colour coding that corresponds to the category you've assigned. (In month views, the text of the event itself reveals the colour; in column views, the block of time occupied by the event reflects its category colour.) Appointments that last longer than one day, such as holidays, appear as banners that stretch across squares on the month view; in column views, they appear just beneath the date at the top of the column. **MW**

There's more on calendars, and three more chapters on Entourage 2001, in Nan Barber & David Reynolds' Office 2001 for Macintosh: The Missing Manual (Pogue Press/O'Reilly; ISBN: 0-596-00081-2). This article is the fourth of a series of Macworld extracts from the book, which costs £17.50 from all good booksellers.
Next month: Dreamweaver 4: The Missing Manual.

Entourage date details

Entourage can display its detail calendar in one of five prefab sizes: Day, Week, Work Week, Month, or List (shown here in back). Front: You can also select an arbitrary number of days and weeks in the overview calendar to show in the detail calendar.

Entourage's week links

If you've indicated a Weekly repeat, you can specify that this event takes place more than once a week by clicking the days-of-the-week checkboxes. This event – a gym workout – takes place Monday, Wednesday, and Friday of each week.

X network nous

Mac OS X networking is different, but shouldn't be feared. By Shelly Brisbin

Macs have always been great networking computers – both the software and the hardware are a breeze to get up and running. But Mac OS X has brought some significant changes to Mac connectivity. In fact, the new operating system is so different that you may be afraid of losing the effortless network access you enjoyed with Mac OS 9. But you needn't fear – the news is good.

If you can set up a Mac OS 9 network, you'll feel right at home with OS X. And it gets better: OS X also allows you to connect your Mac in ways you couldn't before – in a Mac-only network or in a cross-platform network. We'll show you how to set up OS X networking software, introduce some new features, and get you up-to-speed on keeping your data safe in an increasingly interconnected world.

Before you can share files or print from a Mac OS X machine, you'll need to set up your networking software. Fortunately, you have two factors going for you: TCP/IP is configured already if you used the Setup Assistant when you installed Mac OS X, and OS X's network settings look and behave much like OS 9's.

Network talk

The basis of networking in Mac OS X is TCP/IP, the network protocol that runs the Internet. TCP/IP lets a system communicate with Macs and other machines. The stalwart AppleTalk is still around, but you use it only to print to an AppleTalk printer or to share files with a Mac running pre-OS 9 system software.

TCP/IP configuration is part of the Mac OS X setup, so you should be almost ready to join a network. To check out your TCP/IP status and complete the remainder of your network setup, open System Preferences and click on Network. First verify that the topmost Configure pull-down menu shows a network connection (AirPort or Built-in Ethernet, for example) that matches the way you connect to your local network. Now click on the TCP/IP tab to verify that your IP address and other settings are correct for connecting to your local network. If you've used TCP/IP in Mac OS 9, these options will look familiar.

If you need to print to an AppleTalk printer,
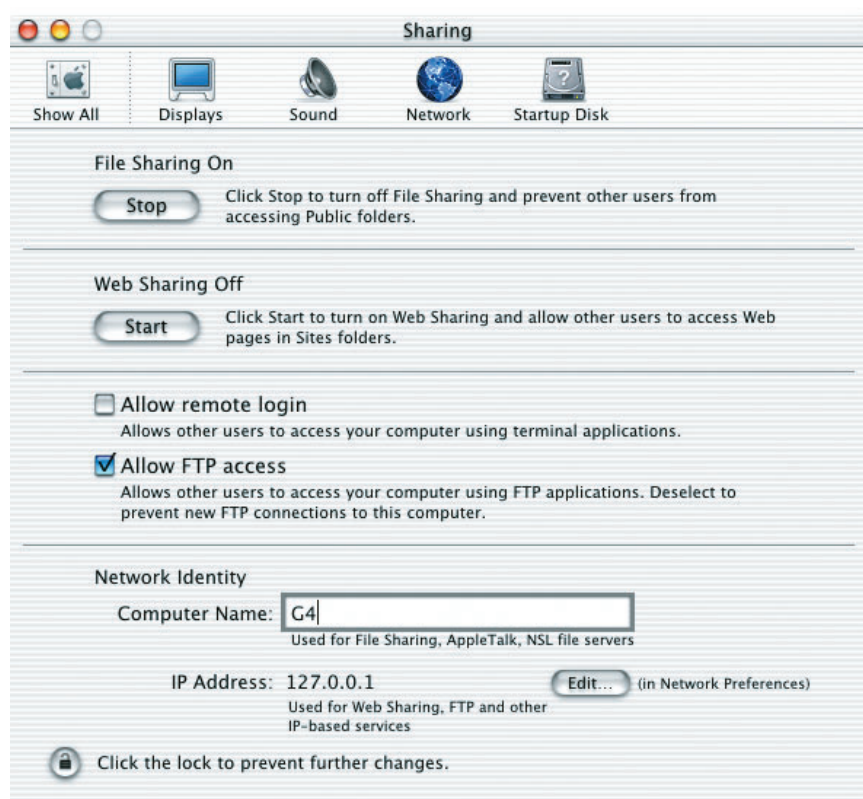
Share and share alike
The Sharing panel in the System Preferences application provides many of the same functions as the File Sharing control panel in OS 9 and earlier.

or if you anticipate that AppleTalk-only Macs will be used to retrieve files from your computer, enable AppleTalk by clicking on the AppleTalk tab and then selecting the Make AppleTalk Active option.

With TCP/IP and AppleTalk running, you're ready to go – assuming, of course, that your Mac is physically connected to a network. Since the same TCP/IP settings you use for your network will get you on the Web, you can verify that your network is up and running by launching a Web browser.
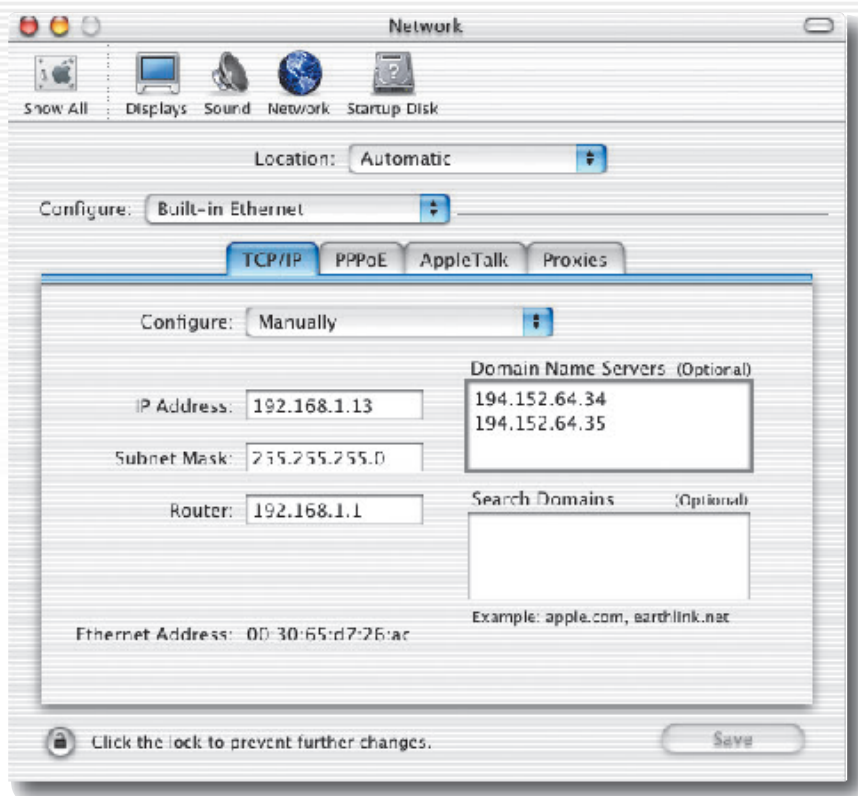
New look, same feel
Mac OS X's TCP/IP set-up dialogue box has been Aquafied, but works in a similar way to OS 9's.

'Unix's command-line access is the single biggest security risk of sharing your Mac.'

To allow and control access to your computer via a network, you'll need to set up user accounts. Like accounts created with the Users & Groups feature in older Mac OSs, a Mac OS X user account provides access to your Mac; the OS X account, however, also creates a folder with a predefined set of privileges.

Making a Mac's files accessible over a network is a quick, two-step process in OS X: just add users, and activate file sharing. To create a new user account, open the Users item in System Preferences. Click on the New User button and fill in the fields. To make the new user an administrator, with full access to the Mac, select the Allow User To Administer This Machine option. When you're done, you'll see the user's account and a folder named for that user on your hard drive.

To enable file sharing, open the Sharing item in System Preferences, and then click on the Start button located next to the File Sharing heading. That's it. You've set up your network for file sharing.

Server connection
It's also quite simple to connect to another Mac OS X machine for file sharing. Choose Connect To Server from the Finder's Go menu; then choose the target Mac from the list of Macs in your local network.

Because Mac OS X uses TCP/IP for file sharing, you can't log on to a machine running Mac OS 8 or earlier from an OS X machine. If you need to access such a Mac, install Open Door Networks' ShareWay IP on them ($79 to $1,799 online, depending on the number of licences; **www.opendoor.com**). This nifty utility gives these systems the same AppleTalk-over-IP access built into Mac OS 9. You must configure TCP/IP on the old machines to make this work.

You can, however, log on to a shared Mac OS X machine from a pre-OS 9 Mac via the Chooser or Network Browser. To log on to a Mac OS 9 machine from Mac OS X, enable file sharing via TCP/IP in the File Sharing control panel on the OS 9 machine.

With AppleTalk enabled in Mac OS X, you can print to AppleTalk-connected printers. Go to your Applications folder and then to the Utilities folder, and open the Print Center application. Click on the Add Printer button, choose AppleTalk from the pull-down menu, select the printer you want, and click on Add.

Something else is new in Mac OS X. Multilink multihoming is a boon to anyone who needs to connect to multiple networks at the same time. Say your network has an ADSL connection for Internet access, and a local network for file sharing and printing. Before OS X, you needed third-party software to keep both connections active. Using multilink multihoming, you simply activate multiple network connections and configure their TCP/IP and AppleTalk settings.

To enable this feature, go to the Network pane of the System Preferences control panel and select Advanced from the top Configure pull-down menu. You can then assign priorities to each network connection by dragging its name up or down the list.

Because Mac OS X is Unix-based, you can also access your Mac remotely via a terminal emulator — using Telnet, remote log-in, rsh, or the OpenSSH (Secure Shell) standard. Remote command-line access allows a remote user to issue Unix commands to control the Mac, run Unix applications, exchange files, and do just about anything else.

Safe sharing
Though this is a convenient way for administrators to manage systems remotely, or to control a Mac via a PC or Unix machine, providing command-line access is the single biggest security risk of sharing your Mac, especially if you use the vulnerable rlogin scheme. For one thing, anyone with a Telnet application and access to your Mac's account information can log in and take control of your machine. The rlogin command is a favourite entry route for hackers, because rlogin does not encrypt data transferred over a network. SSH is much more secure; it encrypts every bit of information you transfer.

If you need to give your Mac remote command-line access, first make sure you're using the most current version of Mac OS. Beginning with Mac OS X 10.0.1, Apple changed the default remote log-in application, replacing rlogin with OpenSSH (which encrypts network data, guarding against interception as it traverses the network). Not updating OS X could put your Mac at risk.

To access your Mac using SSH, users need a client such as MacSSH or OpenSSH, both of which are available free from many Internet sites, including **Macdownload.com**.

Networking in Mac OS X is a lot like the new operating system itself: things look different, but much is still the same. Even better, this Unix-based OS gives you a new level of connectivity — allowing a Mac to function as an equal across-platforms. **MW**

JOHN RITTER

XTending QuarkXPress

Add functionality to QuarkXPress with time- and money-saving XTensions. By David Blatner

People tend to think of QuarkXPress as a finished application, but in fact it's more akin to a computer operating system: what really makes it great is the software you can add to it. There are hundreds of XPress plug-ins, called XTensions. Not all of them are relevant to everyone, but I can guarantee you'll find at least a few so useful that they pay for themselves in no time at all.

Most QuarkXPress users can benefit from a bundle of utility XTensions. In this category are XPert Tools volumes 1 and 2, from A Lowly Apprentice Production (ALAP, **www.alap.com**); each is £69 (ex. VAT) from XChange, 020 7637 2966. Xdream (XChange, £89), from Vision's Edge (**www.visionsedge.com**), is another contender. Each bundle has different features – for example, XPert Tools volume 2 offers a palette that enhances XPress's text-linking feature, and Xdream can list the definitions of a document's style sheets. These XTensions (and the others I mention) should work with QuarkXPress 5.0; check with the developers to be sure.

Who says that the people at Quark know best? Some third-party developers have found great ways to improve upon QuarkXPress's typographic features.

FingerType Designers who love typography go gaga for ALAP's £49 FingerType (XChange), with which you can perform kerning, baseline shifts, and other typographic functions simply by clicking on a letter or word and moving it around – instead of hassling with numbers and keyboard shortcuts.

Redefine Style Sheet The wonderfully simple $50 Redefine Style Sheet, from Xpedient online (**www.xpedient.com**), lets you redefine a style sheet by altering text on a page instead of using cumbersome dialog boxes.

HX PowerSelect One of the most requested features I hear about is the ability to select unconnected text (a word here, a sentence there) and then apply text formatting to all of it at once. The solution: HanMac Software's $79 online HX PowerSelect (**www.hanmac.com**).

Many XTensions enhance the XPress interface. They can help make your mundane tasks both easier and faster.

FullMeasure XT While QuarkXPress's
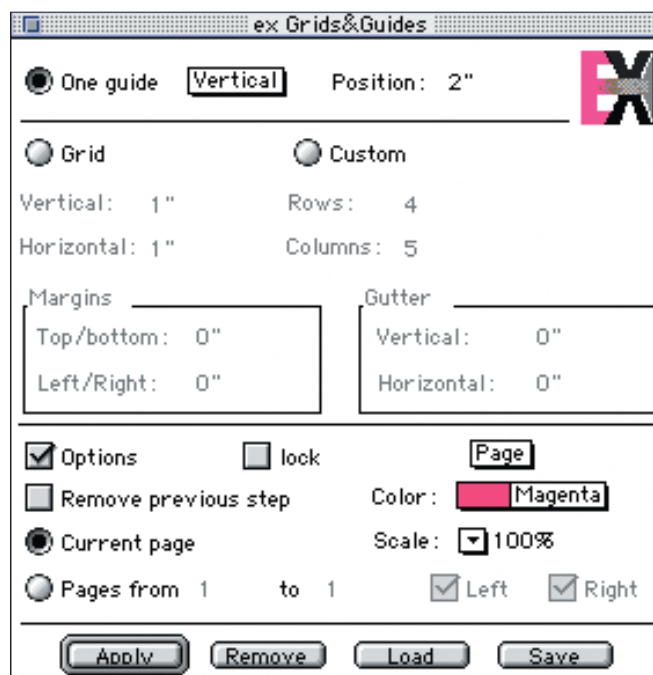
Painlessly position guides and grids
An XTension such as ex Grids & Guides allows you to place guides and change their colour. You can double-click and drag a guide to reposition it precisely.

Measurements palette is serviceable, Badia Software's (**www.badiasoftware.com**) £55 (XChange) FullMeasure XT makes the palette much better, extending it to include dozens of other controls. Every XPress user can benefit from this tool.

XPert Align Some of the best XTensions come from ALAP. This great little company makes the world's best replacement for XPress's lame Space/Align dialog box: XPert Align (XChange, £35).

ex Grids & Guides Quark has developed a free XTension called Guide Manager, which can help you add and remove guides. But it's so cumbersome and confusing that I refuse to use it. Several commercial XTensions are better, including CoDesCo's EURO103 ex Grids & Guides (00 49 40 71 30 01 30, **www.codesco.com**) and Gluon's £39 (XChange) ProGuides (**www.gluon.com**). These let you alter guide colours, create grids, and specify exact guide positions.

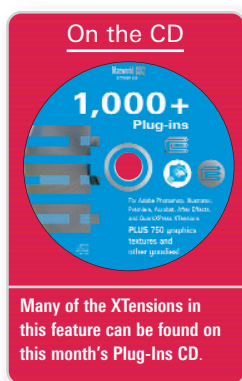**ProScale** Scaling a group of objects is
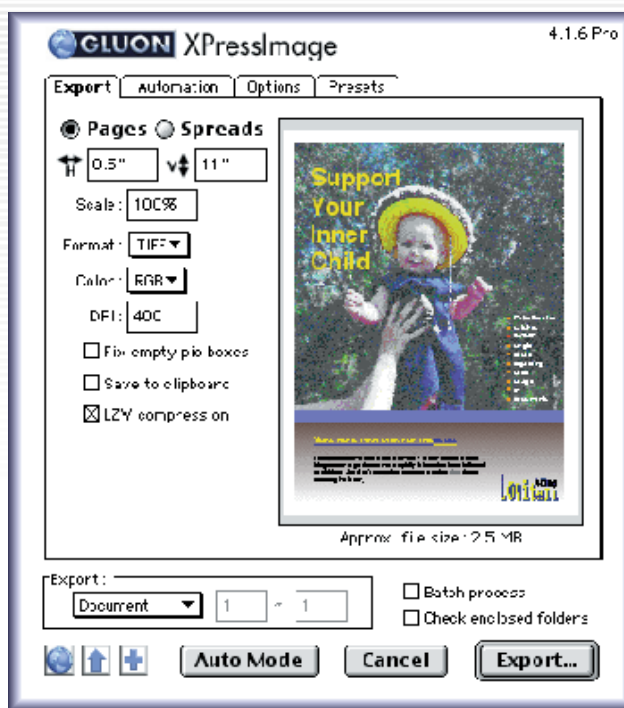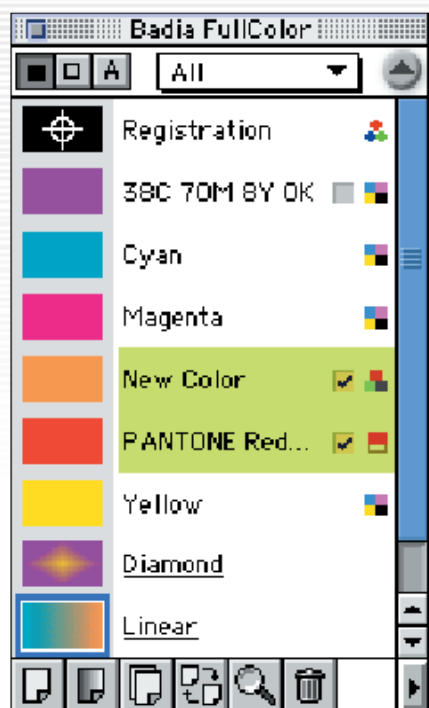
'QuarkXPress without XTensions is like a car without a stereo system: you can get where you want to go, but the going won't be as much fun.'

possible, but a real hassle without an XTension. Gluon's £65 (XChange) ProScale takes the tears away.

QuarkXPress doesn't live in a vacuum; you often need to import content from other sources, or export content for use elsewhere. These XTensions can help.

PDF Filter Quark's free PDF Filter is the best way to get PDF files out of QuarkXPress.

Xdata Anyone who regularly publishes information from a database or spreadsheet should have Em Software's £249 Xdata (XChange, **www.emsoftware.com**).

There are more-expensive XTensions that offer greater database connectivity, but Xdata is brilliantly simple, and powerful enough for most database-publishing tasks.

GetImages Handy if you import lots of images, the £129 GetImages XTension, from Quolmamit (XChange), creates picture boxes and captions for a whole folder of images.

ImagePort ALAP's $100 ImagePort is a favourite of mine, because it does the seemingly impossible: it not only lets you import Adobe Photoshop documents into QuarkXPress, but also actually adds Layers, Channels, and Paths palettes to the XPress interface. (They're not exactly the same as Photoshop's, but they're close.) ImagePort is perhaps best used when you have images with spot colours.

QuarkXPress has long been the primary tool used in laying out books, but that doesn't mean it can't use a little help from some friendly XTensions.

Autopage Many book publishers depend on KyTek's (**www.kytek.com**) powerful Autopage (£6,995, network version; £895, single-machine version; XChange), to automate laying out pages, footnotes, figure references, and so on. It ain't cheap, but if you produce a lot of books, it's worth the money.

fXT Maybe you lay out a lot of footnotes,

but can't afford the Autopage XTension. KyTek sells the footnote feature as a stand-alone XTension, a £269 plug-in called fXT (XChange). Its interface isn't as convenient as Autopage's, but it's faster than setting footnotes by hand.

Imposer QuarkXPress has no built-in method for making a booklet (in which the first page and the last page print side-by-side, the second page and the penultimate page go together, and so on). Commercial printers probably need a high-end (and high-cost) page-imposition solution. But ALAP's £135 Imposer (XChange) is enough for most small shops.

Some XTensions defy categorization. Nevertheless, they fill designers' needs nicely.

ItemMaster Style sheets group a bunch of typographic choices into a single name so you can apply all the formatting with one click. ALAP's £79 (XChange) ItemMaster XTension takes the style-sheet metaphor even further, letting you make item style sheets that you can apply to lines and boxes. For example, you can make a style that describes the colour, the border, and even the size of your sidebars.

XState Markzware's (**www.markzware.com**) £59 XState (XChange) can track groups of documents, including how much time you've worked on each document. It even remembers where you were in a document when you last worked on it.

QuarkXPress without XTensions is like a car without a stereo system: you can get where you want to go, but the going won't be as much fun. XTensions not only make you more efficient, but also allow you to accomplish otherwise impossible things.

Many people complain that all these features should have been built into QuarkXPress to begin with. However, third-party developers often have the ability to create these XTensions faster and cheaper than Quark can. You can wait five or ten years to get the tool you want, or you can pay a little extra and get what you need today. **MW**

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Common code

W3C standards will make sites readable by everyone. **By Jeffrey Zeldman**

When it comes to creating your site, employing Web standards such as HTML 4, XHTML, and Cascading Style Sheets (CSS) gives you the best of all possible worlds. You can deliver your message to all Web users, no matter what browser they're using, and at the same time you can create a more pleasurable visual experience for the fortunate majority who are using modern browsers.

New browsers call for adherence to Web standards, while older browsers – such as Netscape 4, Microsoft Internet Explorer 4, and their predecessors – don't support every nicety of Web standards (see **www.webstandards.org** for more information). But, that doesn't mean you have to give up Web standards altogether if you want to serve appropriate content and design to all.

Today's browsers are happiest when you feed them valid Web documents – error-free pages that contain only tags approved by the World Wide Web Consortium (W3C), and properly authored CSS.

Validating work

You can validate HTML and CSS by testing pages at a free online validation site. It's like receiving the services of a world-class HTML and CSS consultant – at no cost. You may be amazed at how many mistakes Web pages can contain – and at how easy they are to fix when an expert shows you what's wrong with them.

The first step in validating a site is to assign an appropriate document type (DOCTYPE) to each page. A DOCTYPE declaration serves two purposes: first, in newer browsers such as Internet Explorer 5 for Mac and Netscape Navigator 6, the use of a DOCTYPE ensures that standards-compliant Web pages render correctly. (Older browsers, ignore DOCTYPE declarations, just as they ignore much of everything else having to do with Web standards.) And second, you can't validate Web pages without declaring a document type.

If you're new to Web standards and validation, and if your pages use outdated elements, such as the bgcolor attribute in

Overlap dancing
This sort of image overlap is caused by poor CSS support in an older browser, but it can be surprisingly easy to fix.

table cells or the target attribute in links, then HTML 4.01 Transitional is likely the best document type for your pages. For more help in selecting the appropriate document type, see the Web Design Group's tutorial "Choosing a Doctype" at **www.htmlhelp.com/tools/validator/doctype.html**.

4.01 declared

To declare a document type, enter its name at the very top of each HTML page, as in this example, which uses HTML 4.01 Transitional:

```
<!DOCTYPE HTML PUBLIC "-
//W3C//DTD HTML 4.01
Transitional//EN"
"http://www.w3.org/TR/html4/loose.
dtd">

<html>
<head>
<title>My Totally Awesome Web
Site</title>
```
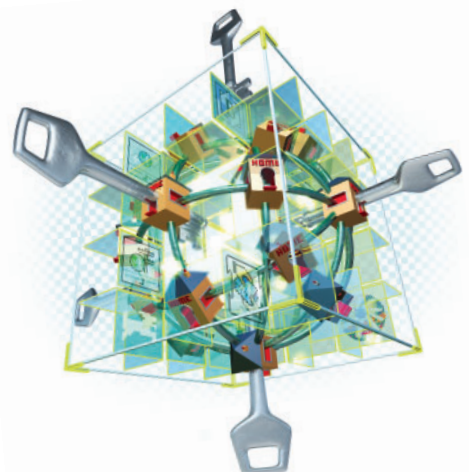
Once you've chosen an appropriate document type and uploaded your page to a Web server, the second step in the validation process is to check the pages with a free online-service such as those maintained by the World Wide Web Consortium (**http://validator.w3.org**) and the Web Design Group (**www.htmlhelp.com/tools/validator/**).
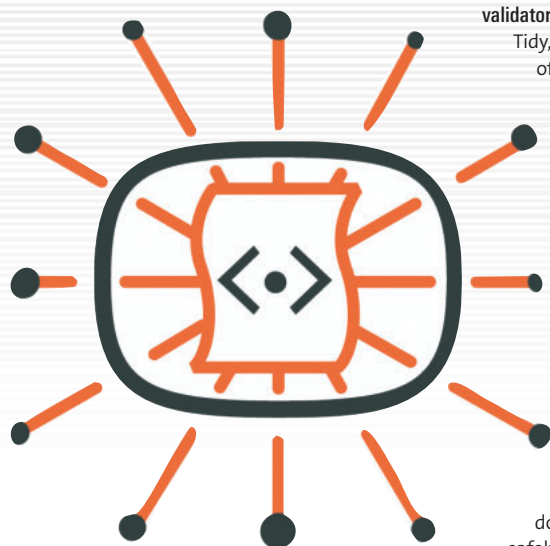
Type your Web page's URL into the forms provided by these services, and within a few seconds you'll receive either a clean bill of health or a list of errors. Fix any errors, upload the corrected page, and try again. Check your

CSS for validity at **http://jigsaw.w3.org/css-validator/**. W3C also offers a free tool called Tidy, which can validate your pages offline, and correct most errors automatically (**www.geocities.com/SiliconValley/1057/tidy.html**).

HTML and CSS validation is the first step toward ensuring that your sites will work correctly in today's and tomorrow's standards-compliant Web browsers. Alas, validation does nothing for yesterday's browsers, whose support for Web standards is unpredictable.

For the most part, though, older browsers can handle valid HTML even if they don't fully support it. (Netscape 4 safely ignores the title attribute of the img tag, for example.) Old browsers don't fare as well with CSS. Problems range from shoddy display to outright lunacy.

No time-wasting

Before you begin modifying Web pages for older browsers, make sure that doing so is worth your while. Some compatibility problems aren't serious enough to warrant expending the effort necessary to correct them. For instance, you may want to live with minor rendering differences, such as extra vertical white space on a page. But you'll want to tackle more-serious problems, such as image overlap (when a browser incorrectly places images on top of text).

In CSS, when you style a page component, your style trickles down to the "children" of that component. For instance, if your style sheet assigns black Verdana text to the body tag, then children of the body tag, such as p and h1, use that font and colour too (unless you specify otherwise). But it doesn't work that way in Netscape 4 – styles applied to body have no effect on p or h1.

The fix? When in doubt, be redundant. By spelling out what you want, you can make Netscape 4 style p the same way it styles body:

```
body {
color: #000;
```

'Old browsers don't fare as well with CSS. Problems range from shoddy display to outright lunacy.'

```
background-color: #fff;
font-family: verdana, arial,
sans-serif;
}

p {
color: #000;
background-color: #fff;
font-family: verdana, arial,
sans-serif;
}
```

Yes, p and body are identical. But this repetition is necessary for Netscape 4, even though Opera 5, Internet Explorer 5 and later, and Netscape 6 don't require it. If you use redundancy wisely, every visitor to your site will see the right fonts and colours.

If an image pertains to a paragraph, you should normally include the image inside the p tag. But in some old browsers, this can cause the image to float on top of the text rather than beside it (see "Overlap dancing"), particularly if you've used leading (line height) in your style sheet:

```
<p><img src="image.gif"
align="left">The image will
overlap this text in bad
browsers.</p>
```

The fix is to place the image outside the p tag, even though logically it belongs inside:

```
<img src="image.gif"
align="left">
<p>This markup avoids image
overlap even in bad browsers.</p>
```

Dual approach

One approach that solves many CSS problems (including images that overlap text), is developing both a basic style sheet for unsophisticated browsers, and a more advanced one for better browsers, and then linking to both. For instance, basic.css would contain rudimentary styles any 4.0 browser could display, such as colours and font families, whereas sophist.css would include advanced styles, for 5.0 and higher browsers. Once you develop the two separate style sheets, you can link each HTML page to both by placing the following links in the head, before the body tag:

```
<link rel=StyleSheet
href="/basic.css" type="text/css"
media=screen>
```
and
```
<style type="text/css"
media="all">@import
"/sophist.css";</style>
```

Because old browsers don't understand the @import method, they will safely ignore the sophisticated styles that they're incapable of displaying correctly. By taking advantage of this simple fact, you can deliver basic presentations to basic browsers, and more-sophisticated presentations to more-capable browsers – without having to create separate versions or resorting to complex JavaScript browser detection.

And that's one of the most important benefits of working with Web standards. Used correctly, they can deliver the appropriate content and design to the widest variety of browsers and devices, in the simplest, most straightforward way possible. **MW**

Invalidation
The Web Design Group's validator can check your site for incorrect code. However, some code that works, such as links to banner-add serving tags, may be marked as an error.
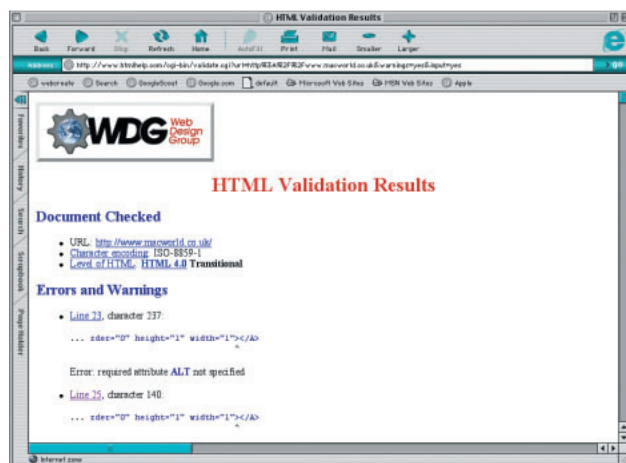
Q&A/tips

• **Entourage headings** • **Oversized Word files** • **Delete X files**

Q&A/tips

Handy tips and readers' questions answered. By Christopher Breen

Modem speed myth

Q Is there a way to speed up my PowerBook modem's dial-up connection?
Zahid Rashid

A An excellent question, Zahid, and one we've bandied about quite a bit. Some people have suggested there's little one can do to speed up a sluggish modem connection, while others have offered the idea that with the right tool, you can make your modem perform seemingly impossible feats of derring-do. Let's try to separate fact from fiction.

To begin with, your 56Kbps modem will never, ever reach its maximum speed in the UK (and many other delightful spots around the globe). In fact, in most cases you'll be lucky to see them top out at 48Kbps.

So is there anything you can do to speed up your connection? Maybe. Start by making the cleanest connection possible between your PowerBook and the phone jack. Avoid plugging the phone cord into phone-line splitters and devices, such as surge protectors and answering machines. Channelling your line through this mishmash of stuff can add noise, which can cause more data-transfer errors, slowing your connection. Line noise also comes from electrical appliances and AC power cords, so if you can better isolate your PowerBook and accompanying phone cord, do so. Long phone cords can also degrade the phone signal, so use a shorter cord if possible.

Cock a keen ear and evaluate the quality of your phone line. If you hear a lot of hissing or crackling, give your phone company a call and report that you have a dirty line that interferes with your voice calls. Don't introduce the phrase data calls into the conversation, because phone companies have to maintain line quality good enough for only voice calls. You could also try getting BT to turn up the signal strength on your line.

Finally, try to connect locally. A local number gives you a better chance of achieving a more direct path to the receiving modem. If a connection is routed through lots of different lines and equipment, it's likely to slow down.

I'll also report what won't help you: a product from macntosh.com (**www.macntosh.com**) called Modem Magic. This $35 collection of modem scripts is aptly named: like all magic, its power is
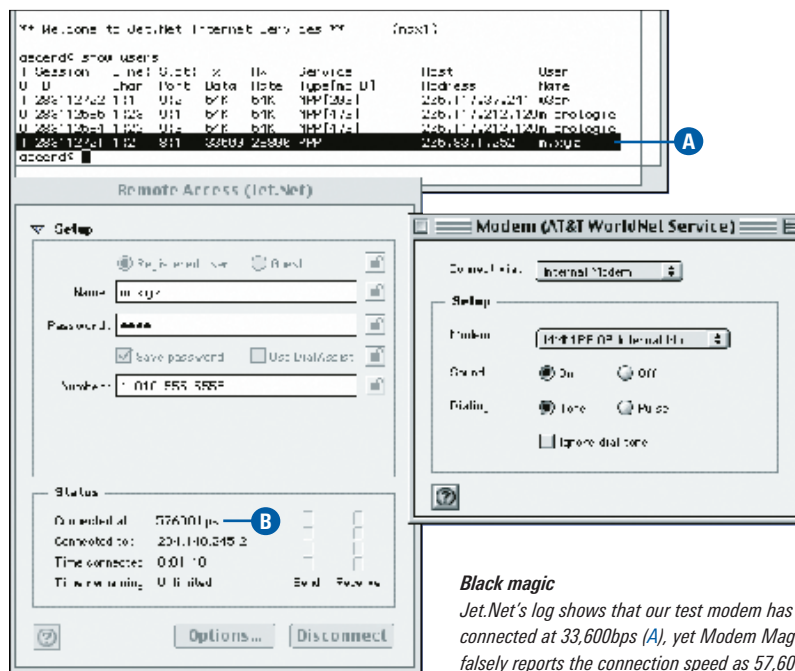
Black magic
Jet.Net's log shows that our test modem has connected at 33,600bps (A), yet Modem Magic falsely reports the connection speed as 57,600bps (B).

based more on illusion than on reality. Many users have recommended Modem Magic, so we decided to put *Macworld* Contributing Editor Mel Beckman to the task of testing it. Mel runs his own ISP and was therefore in a position to see Modem Magic's effects from both ends of a dial-up connection. Beckman reports: "After extensive testing with many different modems under controlled conditions, I can conclusively demonstrate that most, if not all, Modem Magic scripts deliberately force a high reported connect speed, hiding the actual, usually slower, connect speed from the user."

Beckman goes on to say that Modem Magic can even make throughput worse, "because the speed trick necessarily impedes compression, causing overrun buffers and flow control to kick in."

Heading in the right direction

TIP If you'd like to see more or fewer headings in your Outlook Express or Entourage windows, you can enable

'I can prove that most Modem Magic scripts deliberately force a high reported connect speed, hiding the actual speed from the user.'

Huge Word files

TIP Are your Microsoft Word 98 and 2001 documents far heftier than those created in earlier versions of Word? Use the Save As command to slim them down. In my tests, a 284K Word 98 document saved in Word 6.0/95 format trimmed down to a svelte 40K. As a Word 5.1 file, it was only 32K.

Note, however, that Word 98 and Word 2001 files containing graphics don't benefit from this trick – as Word 6.0/95 files they actually get bigger, and they won't save at all as Word 5.1 files. Also, if you've used Track Changes in your original document, those tracked changes remain in Word 6.0/95 files, but appear as black, underlined text in Word 5.1.

and disable headings by Control-clicking anywhere in the heading row (where it reads From, Subject, and Sent) and check or uncheck headings. You may, for example, find no practical use for Entourage's Links heading and choose to hide it.

Photoshop opening

Q I'm having some trouble with a client's TIFF files, which she created in the Windows version of Adobe Photoshop. When I load the files, they bear the PictureViewer icon, and they open in that application as well. I'd prefer that they open in Photoshop when I double-click on them. Is this possible?
Don MacKenzie

A Why, yes, it is. Apple's oft-overlooked File Exchange control panel is this problem's cause and solution. Mac OS is fairly accommodating about opening files created on a PC – sometimes too accommodating. In this case, Mac OS has determined that PictureViewer, the graphics-viewing application included with QuickTime, will open all TIFF files created on a PC. And no, it doesn't matter that the user created these files in Photoshop for Windows. PictureViewer will open those Photoshop files until some adjustments are made.

These include opening the File Exchange control panel and clicking on the PC Exchange tab. In the resulting window you'll see a long list of PC file extensions – .aifc, .bat, .dot, and .tif, for instance – assigned to Mac applications such as QuickTime Player, SimpleText, Word, and PictureViewer. You'll see that the .tif extension is assigned to PictureViewer.

To change the assignment, highlight the file extension you want to alter and click on the Change button. When you do, the Mac will ruminate for a bit before presenting you with the Change Mapping window, which contains a list of the applications on your Mac. Scroll down until you find the appropriate application – for instance, Photoshop – and click on Change to reassign the default application (and icon) for that file type. When next you place a PC Photoshop file on your Mac, it should display the Photoshop icon and launch Photoshop.

iDVD encoding

TIP You may have heard that Apple's easy-does-it DVD creation application, iDVD, that's included with the Power Mac G4 733 MHz is capable of burning discs that are limited to about an hour's length. Some have suggested that this limitation is imposed by the SuperDrive included with these Macs. Not so.

Here's the real dope: iDVD can create hour-long DVDs because the program's encoding bit-rate is set to 8Mbps. While this bit-rate ensures high-quality encoding, it also means the files it creates are quite large and only about an hour's worth of them will fit on a single disc.

Apple's DVD Studio Pro application, on the other hand, offers variable bit rate (VBR) encoding, which lets you adjust this bit-rate, thereby allowing you to squeeze more recording time out of a DVD. With VBR you can record about 2 hours of video on a single DVD.

Apple claims that iDVD 2 – out in September for Mac OS X – uses compression to increase playtime to 90 minutes.

Pointing in the right direction

TIP The Appearance control panel has an undocumented feature accessible only through AppleScript. Running the following script will place double arrows at both ends of window scroll bars, rather than just at the bottom and right edges:

```
        tell application
"Appearance"
              set scroll bar
arrow style to «constant ****dubl»
          quit
      end tel/
```
John Gillette

Limited Word usage

Q After configuring my Mac to use Multiple Users (in Mac OS 9), I've tried to get Microsoft Word to work in a limited account. However, when I launch Word, I receive an error message that reads: "Microsoft Visual Basic cannot start program," and then Word quits. What's going on?
Fred Temple

A I'm afraid you've discovered one of a handful of Multiple Users' shortcomings. You see, Multiple Users lacks a certain subtlety. If you set up a Limited or Panel account, Multiple Users blithely bars access to folders that may be necessary for certain applications to function. Such is the case here.

My guess is that you installed Microsoft Office and then – without running Word for the first time – set up this Limited account. When any component of Microsoft Office runs for the first time, Office flings a number of files into various places within the System Folder.

Because Limited users don't have access to the System Folder, Office can't install these necessary doodads, and you see this inevitable error message. The workaround is to open Word in the Owner account. Once you've done so, it should launch properly from any user account.

Rather than backtracking this way, you'd do well to think ahead before configuring Multiple
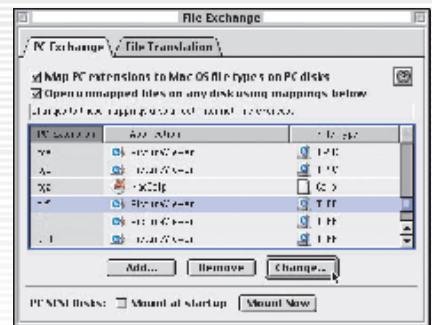
Fair exchange
See Photoshop opening for file-exchange tips.

SCSI to FireWire

Q *I want to buy a PowerBook G4 but have a number of SCSI peripherals. Is there a SCSI to Firewire or SCSI to USB adaptor that would allow me to use these devices on the new computer?*
David Haywood

A *2nd Wave (www.2ndwave.com) has both USB and FireWire SCSI adaptors. The chirpily named SCUSbee is a USB-to-SCSI interface adaptor, featuring a 25-pin external SCSI interface that supports up to seven SCSI devices. Ensure that it will work with your SCSI device before purchasing, as USB adaptors can be a little choosy. It costs £60 (ex. VAT) from AM Micro (01392 426 473).*

The FireWire-to-SCSI Adaptor (£75) is limited to a single SCSI device, but multiple 2ndWave converters can be attached to your FireWire ports. It's much faster than the USB adaptor, and has fewer compatibility issues. It comes as standard with a 25-pin SCSI connector and 6ft FireWire cable. This is also available from AM Micro. Belkin (www.belkin.com) also make a USB-to-SCSI adaptor. It costs £54.95 from MacWarehouse.

Tip of the month: Delete X files

TIP If files and folders become stuck in Mac OS X and cannot be deleted – even if signed in as root – don't open the Terminal and get your hands dirty with Unix disk commands as some quarters have suggested.

Instead, simply drag the offending items to an obvious place – for example, create a folder called 'to trash' on the root level of the drive – reboot into OS 9.1, and delete from there. Simple.

Congratulations to Darren Watson. He wins an hp deskjet 990cm printer. If you think you have a Tip of the month, send it to:
qanda@macworld.co.uk

Zipped shut

TIP *If you've mounted a PC-formatted Zip disk on your Mac running OS X, you can't save directly to that disk from an open Classic application. In other words, you can't use the Save dialog box within a Classic application to save that file to Zip disks formatted in this way. Instead, you must save the file to your hard disk and then copy the file to the Zip by drag-&-drop.*

Likewise, you can't use a Classic application's Open dialog box to open files on PC-formatted Zip disks. Again, you must first copy these files to your hard drive before opening them.

Users. For instance, keep in mind that Limited and Panel users can't configure the Startup Items and Shutdown Items folders in Mac OS 9 and earlier.

This means Panels users can't use the Launcher at all, and Limited users can use it only if the Owner creates an alias of it in the Startup Items folder (inside the user's folder). Likewise, Limited users who want Stickies to appear at startup must have an alias of Stickies in the Startup Items folder within their user's folder.

Shut-up AOL

TIP If you'd like AOL to be seen and not heard, you can selectively silence such sounds as "Welcome" and "You've got mail". To do so, open the America Online folder, then the Online File folder, and finally the Sounds folder. Inside this folder you'll see the various sounds AOL routinely plays. To keep these sounds from playing, simply drag them out of this folder. You can preview these sounds by double-clicking on them.

Beige bound

Q I am using a beige G3 desktop with a 233MHz CPU and 224MB of RAM. I have just been using Mac OS X for a while, and I think it runs very slowly. Why is this? Is is because my machine is too slow and old?
Simon Loveland

A There are two reasons that OS X seems slow to you. First off, you're right in stating that your Mac is a bit on the old side. While any G3 or G4 Mac can run OS X (except the original PowerBook G3), anything less than 300MHz is going to drag. The second reason is that OS X's Finder is still quite slow on its own. Apple will improve X's speed. But, right now, it's a bit of a tortoise. Upgrade to OS X 10.1 in September.

Compression depression

TIP If you've downloaded movie files from the Web, it's likely the following has happened to you. You attempt to view the movie with QuickTime, and instead of seeing the video, you're greeted with a white QuickTime movie window and a message that reads: "Required compressor can't be found." And how, exactly, can you tell which

compressor the movie needs? Try this:

With the movie window open, under QuickTime 5, select Get Movie Properties from the Movie menu. In the resulting window select Video Track from the left pop-up menu, and Format from the right pop-up menu.

Under Data Format, you should see something like Intel Indeo Video R3.2 or MS MPEG-4. This information may or may not be useful to you. If the movie was encoded with some variety of Intel Indeo codec, you may be able to add a Mac-compatible codec to your System Folder and play the movie – you can find the Indeo codecs in the Apple Software Update Library:
http://click.topica.com/maaacsSaaP9hLbVhdznb/.

Classic problem

TIP When you install OS X on a partition or volume formatted as Unix File System (UFS) rather than HFS+ (Mac OS Extended), you'll face a few limitations.

To begin with, AirPort cards aren't recognized on partitions formatted this way.

Secondly, the Classic Mac OS won't work the first time you attempt to launch it. If you wish to make the Classic Mac OS functional under such a formatting scheme, Apple suggests you do the following:
1. Log in to Mac OS X as an Admin user.
2. Choose Go To Folder from the Go menu.
3. Type /System/Library/CoreServices.
4. Click Go.
5. Drag the item Classic Startup to the OS 9.1 Volume.
6. Open the Terminal utility.
7. Type cd /Volumes/HFSvolume/Classic/Startup.app/Contents/Resources. (Note): In place of "HFSvolume," type the exact name of your Mac OS 9.1 volume.
8. Press Return.
9. Type chmod u+s TruBlueEnvironment.
10. Press Return.
11. Type sudo chown root TruBlueEnvironment.
12. Press Return.
13. Enter your Admin user password at the prompt and press return.
14. Quit Terminal.
15. Open "Classic Startup" from the Mac OS 9.1 volume.
16. Click OK when prompted to add Resources. This should solve your problems. **MW**

Andy Ihnatko

Old Macs sell well at car-boot sales, not because they're useful, but because they have character.

Car boot sale

'Some automated tablet-dispensers will make perfect network-controlled goldfish feeders — that is, they will after they're cleaned of barbiturates.'

It's the third Sunday of the month in Cambridge, Massachusetts. And just as axe-wielding undead psychopaths are drawn to remote forest cabins where teenagers are drinking and making out, geeks of every size, gender, race, creed, and operating system can't help but heed the siren call emanating from the corner of Albany and Main Streets. There, in the shadow of one of the Massachusetts Institute of Technology's cyclotrons, lies the MIT car-boot sale.

The MIT car-boot sale is where old technology goes to die. It's also where old technology goes to be reborn. And occasionally it's where technology that the CIA has steadfastly denied it owns is disposed of without paperwork. I mean, it's sort of a mixed bag; the earlier you arrive, the greater the sense of exhilaration and fear at what you'll discover. Suffice it to say, that one of the things drawing me back month after month is the dead certainty that one of these days I'll come across a footpad from an Apollo lunar lander on a card table marked "$40 ONO".

What's in that bin there? It seems to be the discards of some research lab that has upgraded its facilities. Some pill dispensers (automated, of course) will make perfect network-controlled goldfish feeders — that is, they will after they're cleaned of barbiturates.

If the sale has a motto, it's Sic transit gloria mundi. The hypermegasupersexy gear that once graced the covers of *Macworld*, *Byte*, and *PC Advisor* is now gracing a Chiquita banana box underneath a folding table. I couldn't give a toss for homeless puppies or lost kitties, but there's something about a Hewlett-Packard 75C priced at $10 that tugs at my heartstrings.

My father gave away my old Apple II+ when I went away to college, but I was recently able to put together an even better system for about $30. I bought the black Bell & Howell Apple and all flavours of IIe and IIc, and after a morning in which my movements were clearly blessed by God, I assembled the IIGS of my dreams. It was just like new, and I managed to populate every slot for just pennies — and to top it off, it was a Woz Special Edition.

There's no shortage of Macs. I am indeed the person who wrote and published a set of plans for converting classic Macs into MacQuariums, and I would like to believe that people hunt me down because I encourage people to build and sell them to benefit charities. But I know the true motivator: CRTs are hazardous waste that can't be thrown away with regular trash, so these people must find some rube who'll take them.

But why are there so many Macs here, month after month? I've often thought about that. You do see Wintel boxes, but chiefly in the form of the contents of an entire office that got upgraded. Macs are everywhere, in threes, fours, and singles. And they usually move pretty fast, too. Color Classics get snapped up at hefty prices. SE/30s fetch only ten bucks or so, but they often find buyers — they make great Unix boxes. You'll see people lugging around Mac Portables and fiddling with Newtons, and there's usually a table of PowerBooks.

The Quadras and transitional Power Macs are permanent installations, practically Stonehenge-like. I often come home with a peppy pizza-box Quadra: for less than $60, you can buy what is essentially a complete '040-based alternative to the iMac, just perfect as an email-and-Web box for a kid or favoured aunt. They're useful, but they don't generally sell.

People don't form the attachment to a IIsi or Centris that they do to a Color Classic. Yes, a Mac Plus may be nearly useless, but it offers two features that boxy Spindler- and Amelio-era Macs (and Windows machines) don't: character and personality.

You don't see any Jobs-era Macs at all — even original Bondi iMacs are still being used by their first owners. But when an iMac or a Power Mac G3 tower gets jettisoned, it'll find a buyer, just like the Pluses and Color Classics. Character and personality are the Mac's greatest strengths, something that was forgotten until iSteve came back to Apple and began shrieking it to his new underlings. The company's success comes from designing gear that resonates with the user. For good or bad, people buy Macs because they feel right. Like a spouse, a city to live in, or clam chowder, a Mac sells itself with that initial feeling of yes, this one, definitely — whether it's brand-new at £2,499 or used at $10.

As I'm musing on this, a pal spots me and trots over to bring me news: Lisa is in the building. I trot around until I spot it, and all of a sudden, there it is. It doesn't have a Twiggy drive (which remains a Holy Grail for me), but it's a Lisa nonetheless, sitting patiently beneath a table. It's also positively filthy, but it has retained its original dignity, and I soon fork out ten bucks for it.

I heave it into the car. It's stupid anthropomorphism; I acknowledge that. But I will take this Lisa apart and scrub off the grime and peel away the stickers and patch that one hole drilled into the side.

And although I will store this Lisa away with the rest of the group, I take some very small pride in having saved another distinguished member of the Mac family from the scrap heap. **MW**